



SEQUENCE LISTING

<110> Gerlach, Robert L
MacDougall, John R
Smithson, Glenna
Millet, Isabelle
Stone, David
Gunther, Erik
Ellerman, Karen
Grosse, William M
Alsobrook II, John P
Lepley, Denise M
Burgess, Catherine E
Padigaru, Muralidhara
Kekuda, Ramesh
Spytek, Kimberly A
Leach, Martin D
Shimkets, Richard A

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<210> 13

<211> 1896

<212> PRT

<213> Homo sapiens

<400> 13

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Leu Ser Gln Lys Gln Arg Ser Phe Val Thr Phe Arg Gly Glu Pro Ala
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Glu Gly Phe Asn His Leu Val Val Asp Glu Arg Thr Gly His Ile Tyr
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 Leu Gly Ala Val Asn Arg Ile Tyr Lys Leu Ser Ser Asp Leu Lys Val
 65 70 75 80
 Leu Val Thr His Glu Thr Gly Pro Asp Glu Asp Asn Pro Lys Cys Tyr
 85 90 95
 Pro Pro Arg Ile Val Gln Thr Cys Asn Glu Pro Leu Thr Thr Thr Asn
 100 105 110
 Asn Val Asn Lys Met Leu Leu Ile Asp Tyr Lys Glu Asn Arg Leu Ile
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 Ala Cys Gly Ser Leu Tyr Gln Gly Ile Cys Lys Leu Leu Arg Leu Glu
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 Asp Leu Phe Lys Leu Gly Glu Pro Tyr His Lys Lys Glu His Tyr Leu
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 Ser Gly Val Asn Glu Ser Gly Ser Val Phe Gly Val Ile Val Ser Tyr
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 Ser Asn Leu Asp Asp Lys Leu Phe Ile Ala Thr Ala Val Asp Gly Lys
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 Pro Glu Tyr Phe Pro Thr Ile Ser Ser Arg Lys Leu Thr Lys Asn Ser
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 Glu Ala Asp Gly Met Phe Ala Tyr Val Phe His Asp Glu Phe Val Ala
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 Ser Met Ile Lys Ile Pro Ser Asp Thr Phe Thr Ile Ile Pro Asp Phe
 225 230 235 240
 Asp Ile Tyr Tyr Val Tyr Gly Phe Ser Ser Gly Asn Phe Val Tyr Phe
 245 250 255
 Leu Thr Leu Gln Pro Glu Met Val Ser Pro Pro Gly Ser Thr Thr Lys
 260 265 270
 Glu Gln Val Tyr Thr Ser Lys Leu Val Arg Leu Cys Lys Glu Asp Thr
 275 280 285
 Ala Phe Asn Ser Tyr Val Glu Val Pro Ile Gly Cys Glu Arg Ser Gly
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 Val Glu Tyr Arg Leu Leu Gln Ala Ala Tyr Leu Ser Lys Ala Gly Ala
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 Val Leu Gly Arg Thr Leu Gly Val His Pro Asp Asp Asp Leu Leu Phe
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 Thr Val Phe Ser Lys Gly Gln Lys Arg Lys Met Lys Ser Leu Asp Glu
 340 345 350

Ser Ala Leu Cys Ile Phe Ile Leu Lys Gln Ile Asn Asp Arg Ile Lys
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 Glu Arg Leu Gln Ser Cys Tyr Arg Gly Glu Gly Thr Leu Asp Leu Ala
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 Thr Ser Val Ile Ala Tyr Val Tyr Lys Asn His Ser Leu Ala Phe Val
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 Gly Thr Lys Ser Gly Lys Leu Lys Lys Ile Arg Val Asp Gly Pro Arg
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 Gly Asn Ala Leu Gln Tyr Glu Thr Val Gln Val Val Asp Pro Gly Pro
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 Val Leu Arg Asp Met Ala Phe Ser Lys Asp His Glu Gln Leu Tyr Ile
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 Met Ser Glu Arg Gln Leu Thr Arg Val Pro Val Glu Ser Cys Gly Gln
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 Tyr Gln Ser Cys Gly Glu Cys Leu Gly Ser Gly Asp Pro His Cys Gly
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 Trp Cys Val Leu His Asn Thr Cys Thr Arg Lys Glu Arg Cys Glu Arg
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 Ser Lys Glu Pro Arg Arg Phe Ala Ser Glu Met Lys Gln Cys Val Arg
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 Cys Thr Phe Glu Asp Leu Ser Glu Met Asp Gly Leu Val Val Gly Asn
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 Gln Ile Gln Cys Tyr Ser Pro Ala Ala Lys Glu Val Pro Arg Ile Ile
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 Thr Glu Asn Gly Asp His His Val Val Gln Leu Gln Leu Lys Ser Lys
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 Glu Thr Gly Met Thr Phe Ala Ser Thr Ser Phe Val Phe Tyr Asn Cys
 645 650 655

Ser Val His Asn Ser Cys Leu Ser Cys Val Glu Ser Pro Tyr Arg Cys
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 His Trp Cys Lys Tyr Arg His Val Cys Thr His Asp Pro Lys Thr Cys
 675 680 685
 Ser Phe Gln Glu Gly Arg Val Lys Leu Pro Glu Asp Cys Pro Gln Leu
 690 695 700
 Leu Arg Val Asp Lys Ile Leu Val Pro Val Glu Val Ile Lys Pro Ile
 705 710 715 720
 Thr Leu Lys Ala Lys Asn Leu Pro Gln Pro Gln Ser Gly Gln Arg Gly
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 Tyr Glu Cys Ile Leu Asn Ile Gln Gly Ser Glu Gln Arg Val Pro Ala
 740 745 750
 Leu Arg Phe Asn Ser Ser Ser Val Gln Cys Gln Asn Thr Ser Tyr Ser
 755 760 765
 Tyr Glu Gly Met Glu Ile Asn Asn Leu Pro Val Glu Leu Thr Val Val
 770 775 780
 Trp Asn Gly His Phe Asn Ile Asp Asn Pro Ala Gln Asn Lys Val His
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 Leu Tyr Lys Cys Gly Ala Met Arg Glu Ser Cys Gly Leu Cys Leu Lys
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 Ala Asp Pro Asp Phe Ala Cys Gly Trp Cys Gln Gly Pro Gly Gln Cys
 820 825 830
 Thr Leu Arg Gln His Cys Pro Ala Gln Glu Ser Gln Trp Leu Glu Leu
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 Ser Gly Ala Lys Ser Lys Cys Thr Asn Pro Arg Ile Thr Glu Ile Ile
 850 855 860
 Pro Val Thr Gly Pro Arg Glu Gly Gly Thr Lys Val Thr Ile Arg Gly
 865 870 875 880
 Glu Asn Leu Gly Leu Glu Phe Arg Asp Ile Ala Ser His Val Lys Val
 885 890 895
 Ala Gly Val Glu Cys Ser Pro Leu Val Asp Gly Tyr Ile Pro Ala Glu
 900 905 910
 Gln Ile Val Cys Glu Met Gly Glu Ala Lys Pro Ser Gln His Ala Gly
 915 920 925
 Phe Val Glu Ile Cys Val Ala Val Cys Arg Pro Glu Phe Met Ala Arg
 930 935 940
 Ser Ser Gln Leu Tyr Tyr Phe Met Thr Leu Thr Leu Ser Asp Leu Lys
 945 950 955 960

Pro Ser Arg Gly Pro Met Ser Gly Gly Thr Gln Val Thr Ile Thr Gly
 965 970 975
 Thr Asn Leu Asn Ala Gly Ser Asn Val Val Val Met Phe Gly Lys Gln
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 Pro Cys Leu Phe His Arg Arg Ser Pro Ser Tyr Ile Val Cys Asn Thr
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 Thr Ser Ser Asp Glu Val Leu Glu Met Lys Val Ser Val Gln Val Asp
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 Pro Asp His Gln Ser Asp Leu Thr Glu Arg Pro Glu Glu Phe Gly Phe
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 1125 1130 1135
 Thr Tyr Tyr Pro Asn Pro Val Phe Glu Ala Phe Gly Pro Ser Gly Ile
 1140 1145 1150
 Leu Glu Leu Lys Pro Gly Thr Pro Ile Ile Leu Lys Gly Lys Asn Leu
 1155 1160 1165
 Ile Pro Pro Val Ala Gly Gly Asn Val Lys Leu Asn Tyr Thr Val Leu
 1170 1175 1180
 Val Gly Glu Lys Pro Cys Thr Val Thr Val Ser Asp Val Gln Leu Leu
 1185 1190 1195 1200
 Cys Glu Ser Pro Asn Leu Ile Gly Arg His Lys Val Met Ala Arg Val
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 Gly Gly Met Glu Tyr Ser Pro Gly Met Val Tyr Ile Ala Pro Asp Ser
 1220 1225 1230
 Pro Leu Ser Leu Pro Ala Ile Val Ser Ile Ala Val Ala Gly Gly Leu
 1235 1240 1245
 Leu Ile Ile Phe Ile Val Ala Val Leu Ile Ala Tyr Lys Arg Lys Ser
 1250 1255 1260

Arg Glu Ser Asp Leu Thr Leu Lys Arg Leu Gln Met Gln Met Asp Asn
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Leu Glu Ser Arg Val Ala Leu Glu Cys Lys Glu Ala Phe Ala Glu Leu
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Gln Thr Asp Ile His Glu Leu Thr Ser Asp Leu Asp Gly Ala Gly Ile
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Pro Phe Leu Asp Tyr Arg Thr Tyr Thr Met Arg Val Leu Phe Pro Gly
 1315 1320 1325

Ile Glu Asp His Pro Val Leu Arg Asp Leu Glu Val Pro Gly Tyr Arg
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Gln Glu Arg Val Glu Lys Gly Leu Lys Leu Phe Ala Gln Leu Ile Asn
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Asn Lys Val Phe Leu Leu Ser Phe Ile Arg Thr Leu Glu Ser Gln Arg
 1365 1370 1375

Ser Phe Ser Met Arg Asp Arg Gly Asn Val Ala Ser Leu Ile Met Thr
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Val Leu Gln Ser Lys Leu Glu Tyr Ala Thr Asp Val Leu Lys Gln Leu
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Leu Ala Asp Leu Ile Asp Lys Asn Leu Glu Ser Lys Asn His Pro Lys
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Leu Leu Leu Arg Arg Thr Glu Ser Val Ala Glu Lys Met Leu Thr Asn
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Trp Phe Thr Phe Leu Leu Tyr Lys Phe Leu Lys Glu Cys Ala Gly Glu
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Pro Leu Phe Ser Leu Phe Cys Ala Ile Lys Gln Gln Met Glu Lys Gly
 1460 1465 1470

Pro Ile Asp Ala Ile Thr Gly Glu Ala Arg Tyr Ser Leu Ser Glu Asp
 1475 1480 1485

Lys Leu Ile Arg Gln Gln Ile Asp Tyr Lys Thr Leu Val Leu Ser Cys
 1490 1495 1500

Val Ser Pro Asp Asn Ala Asn Ser Pro Glu Val Pro Val Lys Ile Leu
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Asn Cys Asp Thr Ile Thr Gln Val Lys Glu Lys Ile Leu Asp Ala Ile
 1525 1530 1535

Phe Lys Asn Val Pro Cys Ser His Arg Pro Lys Ala Ala Asp Met Asp
 1540 1545 1550

Leu Glu Trp Arg Gln Gly Ser Gly Ala Arg Met Ile Leu Gln Asp Glu
 1555 1560 1565

Asp Ile Thr Thr Lys Ile Glu Asn Asp Trp Lys Arg Leu Asn Thr Leu
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 Ala His Tyr Gln Val Pro Asp Gly Ser Val Val Ala Leu Val Ser Lys
 1585 1590 1595 1600
 Gln Val Thr Ala Tyr Asn Ala Val Asn Asn Ser Thr Val Ser Arg Thr
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 Ser Ala Ser Lys Tyr Glu Asn Met Ile Arg Tyr Thr Gly Ser Pro Asp
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 Ser Leu Arg Ser Arg Thr Pro Met Ile Thr Pro Asp Leu Glu Ser Gly
 1635 1640 1645
 Val Lys Met Trp His Leu Val Lys Asn His Glu His Gly Asp Gln Lys
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 Glu Gly Asp Arg Gly Ser Lys Met Val Ser Glu Ile Tyr Leu Thr Arg
 1665 1670 1675 1680
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 1685 1690 1695
 Glu Thr Ile Phe Ser Thr Ala His Arg Gly Ser Ala Leu Pro Leu Ala
 1700 1705 1710
 Ile Lys Tyr Met Phe Asp Phe Leu Asp Glu Gln Ala Asp Lys His Gly
 1715 1720 1725
 Ile His Asp Pro His Val Arg His Thr Trp Lys Ser Asn Cys Leu Pro
 1730 1735 1740
 Leu Arg Phe Trp Val Asn Met Ile Lys Asn Pro Gln Phe Val Phe Asp
 1745 1750 1755 1760
 Ile His Lys Asn Ser Ile Thr Asp Ala Cys Leu Ser Val Val Ala Gln
 1765 1770 1775
 Thr Phe Met Asp Ser Cys Ser Thr Ser Glu His Arg Leu Gly Lys Asp
 1780 1785 1790
 Ser Pro Ser Asn Lys Leu Leu Tyr Ala Lys Asp Ile Pro Ser Tyr Lys
 1795 1800 1805
 Asn Trp Val Glu Arg Tyr Tyr Ser Asp Ile Gly Lys Met Pro Ala Ile
 1810 1815 1820
 Ser Asp Gln Asp Met Asn Ala Tyr Leu Ala Glu Gln Ser Arg Met His
 1825 1830 1835 1840
 Met Asn Glu Phe Asn Thr Met Ser Ala Leu Ser Glu Ile Phe Ser Tyr
 1845 1850 1855
 Val Gly Lys Tyr Ser Glu Glu Ile Leu Gly Pro Leu Asp His Asp Asp
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Gln Cys Gly Lys Gln Lys Leu Ala Tyr Lys Leu Glu Gln Val Ile Thr
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Leu Met Ser Leu Asp Ser Asn Lys
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 aagcatgcac acacaagcaa atacatggct ttcca 1535

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 <212> PRT
 <213> Homo sapiens

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 35 40 45

Leu Leu Val Ile Trp Thr Leu Leu Gly Asn Val Leu Val Ser Ala Ala
 50 55 60
 Ile Val Trp Ser Arg His Leu Arg Ala Lys Met Thr Asn Val Phe Ile
 65 70 75 80
 Val Ser Leu Pro Val Ser Asp Leu Phe Val Ala Leu Leu Val Met Ser
 85 90 95
 Trp Lys Ala Val Ala Glu Val Ala Gly Tyr Trp Pro Phe Glu Ala Phe
 100 105 110
 Cys Asp Val Trp Val Ala Phe Asp Ile Met Cys Ser Thr Ala Ser Ile
 115 120 125
 Leu Asn Leu Cys Val Ile Ser Val Ala Arg Tyr Trp Ala Ile Ser Arg
 130 135 140
 Pro Phe Arg Tyr Glu Arg Lys Met Thr Gln Arg Met Ala Leu Val Met
 145 150 155 160
 Val Arg Pro Ala Trp Thr Leu Ser Ser Leu Ile Ser Phe Ile Pro Val
 165 170 175
 Gln Leu Asn Trp His Arg Asp Gln Ala Val Ser Trp Gly Gly Leu Asp
 180 185 190
 Leu Pro Asn Asn Leu Ala Asn Trp Thr Pro Trp Glu Glu Ala Val Trp
 195 200 205
 Glu Pro Asp Val Arg Ala Glu Asn Cys Asp Ser Ser Leu Asn Arg Thr
 210 215 220
 Tyr Ala Ile Pro Ser Ser Leu Ile Ser Phe Tyr Ile Pro Met Ala Ile
 225 230 235 240
 Met Ile Val Thr Tyr Thr Arg Ile Tyr Arg Ile Ala Gln Val Gln Ile
 245 250 255
 Arg Arg Ile Ser Ser Leu Glu Arg Ala Ala Glu His Val Gln Ser Cys
 260 265 270
 Arg Ser Ser Ala Gly Cys Thr Pro Asp Thr Ser Leu Arg Phe Ser Ile
 275 280 285
 Lys Lys Glu Thr Glu Val Leu Lys Thr Leu Ser Val Ile Met Gly Val
 290 295 300
 Phe Val Cys Cys Trp Leu Pro Phe Phe Ile Leu Asn Cys Met Val Pro
 305 310 315 320
 Phe Cys Ser Gly His Pro Lys Gly Pro Pro Ala Gly Phe Pro Cys Val
 325 330 335
 Ser Glu Thr Thr Phe Asp Val Phe Ile Trp Phe Cys Trp Ala Asn Ser
 340 345 350

Ser Leu Asn Pro Val Pro Ser His Tyr Ala Phe Asn Ala Asp Phe Arg
 355 360 365
 Lys Val Phe Ala Gln Leu Leu Gly Cys Ser His Val Cys Ser Arg Thr
 370 375 380
 Pro Val Glu Thr Val Asn Ile Ser Asn Glu Leu Ile Ser Tyr Asn Gln
 385 390 395 400
 Asp Thr Val Phe His Lys Glu Ile Ala Ala Ala Tyr Ile His Met Met
 405 410 415
 Pro Asn Ala Ile Pro Pro Gly Asp Arg Glu Val Asp Asn Asp Glu Glu
 420 425 430
 Glu Glu Ser Pro Phe Asp Arg Met Ser Gln Ile Tyr Gln Thr Ser Pro
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 acttccttgc tccattcaac ccaaataaag gagcagacag cattgtgaag tttgacactt 1380

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<210> 17

<211> 879

<212> PRT

<213> Homo sapiens

<400> 17

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Ile Lys Ile Glu Gly Asp Leu Val Leu Gly Gly Leu Phe Pro Ile Asn
 35              40              45

Glu Lys Gly Thr Gly Thr Glu Glu Cys Gly Arg Ile Asn Glu Asp Arg
 50              55              60

Gly Ile Gln Arg Leu Glu Ala Met Leu Phe Ala Ile Asp Glu Ile Asn
 65              70              75              80

Lys Asp Asn Tyr Leu Leu Pro Gly Val Lys Leu Gly Val His Ile Leu
      85              90              95

Asp Thr Cys Ser Arg Asp Thr Tyr Ala Leu Glu Gln Ser Leu Glu Phe
 100              105              110

Val Arg Ala Ser Leu Thr Lys Val Asp Glu Ala Glu Tyr Met Cys Pro
 115              120              125

Asp Gly Ser Tyr Ala Ile Gln Glu Asn Ile Pro Leu Leu Ile Ala Gly
 130              135              140

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			165						170					175		
Lys	Leu	Ser	Asp	Lys	Ser	Arg	Tyr	Asp	Tyr	Phe	Ala	Arg	Thr	Val	Pro	
			180					185					190			
Pro	Asp	Phe	Tyr	Gln	Ala	Lys	Ala	Met	Ala	Glu	Ile	Leu	Arg	Tyr	Phe	
		195					200					205				
Asn	Trp	Thr	Tyr	Val	Ser	Thr	Val	Ala	Ser	Glu	Gly	Asp	Tyr	Gly	Glu	
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Thr	Gly	Ile	Glu	Ala	Phe	Glu	Gln	Glu	Ala	Arg	Leu	Arg	Asn	Ile	Cys	
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 Leu Lys Val Gly His Trp Ala Glu Thr Leu Tyr Leu Asp Val Asp Ser
 485 490 495
 Ile His Trp Ser Arg Asn Ser Val Pro Thr Ser Gln Cys Ser Asp Pro
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 Val Trp Leu Ile Leu Glu Thr Pro Gly Thr Arg Arg Tyr Thr Leu Pro
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 Glu Lys Arg Glu Thr Val Ile Leu Lys Cys Asn Val Lys Asp Ser Ser
 725 730 735
 Met Leu Ile Ser Leu Thr Tyr Asp Val Val Leu Val Ile Leu Cys Thr
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Val Tyr Ala Phe Lys Thr Arg Lys Cys Pro Glu Asn Phe Asn Glu Ala
755 760 765

Lys Phe Ile Gly Phe Thr Met Tyr Thr Thr Cys Ile Ile Trp Leu Ala
770 775 780

Phe Leu Pro Ile Phe Tyr Val Thr Ser Ser Asp Tyr Arg Val Gln Thr
785 790 795 800

Thr Thr Met Cys Ile Ser Val Ser Leu Ser Gly Phe Val Val Leu Gly
805 810 815

Cys Leu Phe Ala Pro Lys Val His Ile Val Leu Phe Gln Pro Gln Lys
820 825 830

Asn Val Val Thr His Arg Leu His Leu Asn Arg Phe Ser Val Ser Gly
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<211> 1366

<212> DNA

<213> Homo sapiens

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Ala Lys Gln Lys Val Glu Lys Glu Ala Gln Ala Arg Glu Ala Lys Leu		
	325	330 335
Gln Ala Glu Cys Ser Arg Gln Thr Gln Leu Ala Leu Glu Glu Lys Ala		
	340	345 350
Val Leu Arg Lys Glu Arg Asp Asn Leu Ala Lys Glu Leu Glu Glu Lys		
	355	360 365
Lys Arg Glu Ala Glu Gln Leu Arg Met Glu Leu Ala Ile Arg Asn Ser		
	370	375 380
Ala Leu Asp Thr Cys Ile Lys Thr Lys Ser Gln Pro Met Met Pro Val		
385	390	395 400
Ser Arg Pro Met Gly Pro Val Pro Asn Pro Gln Pro Ile Asp Pro Ala		
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 <213> Homo sapiens

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<210> 21
<211> 442
<212> PRT
<213> Homo sapiens

<400> 21

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Ser	Leu	Ile	Gln	Phe	Leu	Ile	Ile	Leu	Gly	Leu	Val	Leu	Phe	Met	Val	35	40	45	
Tyr	Gly	Asp	Val	His	Val	Ser	Thr	Glu	Ser	Asn	Leu	Gln	Ala	Thr	Glu	50	55	60	
Arg	Arg	Ala	Glu	Gly	Leu	Tyr	Ser	Gln	Leu	Leu	Gly	Leu	Thr	Ala	Ser	65	70	75	80
Gln	Ser	Asn	Leu	Thr	Lys	Glu	Leu	Asn	Phe	Thr	Thr	Arg	Ala	Lys	Asp	85	90	95	
Ala	Ile	Met	Gln	Met	Trp	Leu	Asn	Ala	Arg	Arg	Asp	Leu	Asp	Arg	Ile	100	105	110	
Asn	Ala	Ser	Phe	Arg	Gln	Cys	Gln	Gly	Asp	Arg	Val	Ile	Tyr	Thr	Asn	115	120	125	
Asn	Gln	Arg	Tyr	Met	Ala	Ala	Ile	Ile	Leu	Ser	Glu	Lys	Gln	Cys	Arg	130	135	140	
Asp	Gln	Phe	Lys	Asp	Met	Asn	Lys	Ser	Cys	Asp	Ala	Leu	Leu	Phe	Met	145	150	155	160
Leu	Asn	Gln	Lys	Val	Lys	Thr	Leu	Glu	Val	Glu	Ile	Ala	Lys	Glu	Lys	165	170	175	
Thr	Ile	Cys	Thr	Lys	Asp	Lys	Glu	Ser	Val	Leu	Leu	Asn	Lys	Arg	Val	180	185	190	
Ala	Glu	Glu	Gln	Leu	Val	Glu	Cys	Val	Lys	Thr	Arg	Glu	Leu	Gln	His	195	200	205	
Gln	Glu	Arg	Gln	Leu	Ala	Lys	Glu	Gln	Leu	Gln	Lys	Val	Gln	Ala	Leu	210	215	220	
Cys	Leu	Pro	Leu	Asp	Lys	Asp	Lys	Phe	Glu	Met	Asp	Leu	Arg	Asn	Leu				

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Trp Arg Asp Ser Ile Ile Pro Arg Ser Leu Asp Asn Leu Gly Tyr Asn						
	245			250		255
Leu Tyr His Pro Leu Gly Ser Glu Leu Ala Ser Ile Arg Arg Ala Cys						
	260			265		270
Asp His Met Pro Ser Leu Met Ser Ser Lys Val Glu Glu Leu Ala Arg						
	275			280		285
Ser Leu Arg Ala Asp Ile Glu Arg Val Ala Arg Glu Asn Ser Asp Leu						
	290			295		300
Gln Arg Gln Lys Leu Glu Ala Gln Gln Gly Leu Arg Ala Ser Gln Glu						
305		310		315		320
Ala Lys Gln Lys Val Glu Lys Glu Ala Gln Ala Arg Glu Ala Lys Leu						
	325			330		335
Gln Ala Glu Cys Ser Arg Gln Thr Gln Leu Ala Leu Glu Glu Lys Ala						
	340			345		350
Val Leu Arg Lys Glu Arg Asp Asn Leu Ala Lys Glu Leu Glu Glu Lys						
	355			360		365
Lys Arg Glu Ala Glu Gln Leu Arg Met Glu Leu Ala Ile Arg Asn Ser						
	370			375		380
Ala Leu Asp Thr Cys Ile Lys Thr Lys Ser Gln Pro Met Met Pro Val						
385		390		395		400
Ser Arg Pro Met Gly Pro Val Pro Asn Pro Gln Pro Ile Asp Pro Ala						
	405			410		415
Ser Leu Glu Glu Phe Lys Arg Lys Ile Leu Glu Ser Gln Arg Pro Pro						
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Ala Gly Ile Pro Val Ala Pro Ser Ser Gly						
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 <211> 2024
 <212> DNA
 <213> Homo sapiens

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<210> 23
 <211> 442
 <212> PRT
 <213> Homo sapiens

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 35               40              45

Tyr Gly Asn Val His Val Ser Thr Glu Ser Asn Leu Gln Ala Thr Glu
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Arg Arg Ala Glu Gly Leu Tyr Ser Gln Leu Leu Gly Leu Thr Ala Ser
 65               70              75              80

Gln Ser Asn Leu Thr Lys Glu Leu Asn Phe Thr Thr Arg Ala Lys Asp
 85               90              95

Ala Ile Met Gln Met Trp Leu Asn Ala Arg Arg Asp Leu Asp Arg Ile
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Asn Ala Ser Phe Arg Gln Cys Gln Gly Asp Arg Val Ile Tyr Thr Asn
115              120             125

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Leu Asn Gln Lys Val Lys Thr Leu Glu Val Glu Ile Ala Lys Glu Lys
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Thr Ile Cys Thr Lys Asp Lys Glu Ser Val Leu Leu Asn Lys Arg Val
 180 185 190

Ala Glu Glu Gln Leu Val Glu Cys Val Lys Thr Arg Glu Leu Gln His
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Gln Glu Arg Gln Leu Ala Lys Glu Gln Leu Gln Arg Val Gln Ala Leu
 210 215 220

Cys Leu Pro Leu Asp Lys Asp Lys Phe Glu Met Asp Leu Arg Asn Leu
 225 230 235 240

Trp Arg Asp Ser Ile Ile Pro Arg Ser Leu Asp Asn Leu Gly Tyr Asn
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Leu Tyr His Pro Leu Gly Ser Glu Leu Ala Ser Ile Arg Arg Ala Cys
 260 265 270

Asp His Met Pro Ser Leu Val Ser Ser Lys Val Glu Glu Leu Ala Arg
 275 280 285

Ser Leu Arg Ala Asp Ile Glu Arg Val Ala Arg Glu Asn Ser Asp Leu
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Gln Arg Gln Lys Leu Glu Ala Gln Gln Gly Leu Arg Ala Ser Gln Glu
 305 310 315 320

Ala Lys Gln Lys Val Glu Lys Glu Ala Gln Ala Arg Glu Ala Lys Leu
 325 330 335

Gln Ala Glu Cys Ser Arg Gln Thr Gln Leu Ala Leu Glu Glu Lys Ala
 340 345 350

Val Leu Arg Lys Glu Arg Asp Asn Leu Ala Lys Glu Leu Glu Glu Lys
 355 360 365

Lys Arg Glu Ala Glu Gln Leu Arg Met Glu Leu Ala Ile Arg Asn Ser
 370 375 380

Ala Leu Asp Thr Cys Ile Lys Thr Lys Ser Gln Pro Met Met Pro Val
 385 390 395 400

Ser Arg Pro Met Gly Pro Val Pro Asn Pro Gln Pro Ile Asp Pro Ala
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Ala Gly Ile Pro Val Ala Pro Ser Ser Gly
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<210> 24
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 <212> DNA
 <213> Homo sapiens

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Arg Leu Cys Gln Ala Ala Ile Gln Lys Leu Gln Glu Tyr Ile Gln Leu
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Glu Thr Val Gly Leu Ser Phe Gly Asn Ile Pro Val Phe Gly Asp Tyr
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Gly Glu Lys Arg Arg Gly Gly Lys Lys Arg Lys Thr His Gln Gly Pro
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Val Leu Asp Val Gly Cys Ile Trp Val Thr Glu Leu Arg Lys Asn Ser
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Pro Ala Gly Lys Ser Gly Lys Val Arg Leu Arg Asp Glu Ile Leu Ser
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Arg	Gln	Ala	Ser	Leu	Pro	Gly	Ser	Pro	Gln	Ala	Leu	Arg	Asn	Pro	Leu		
		915					920					925					
Leu	Arg	Gln	Arg	Lys	Val	Gly	Cys	Tyr	Asp	Ala	Asn	Asp	Ala	Ser	Asp		
	930					935					940						

Glu Glu Glu Phe Asp Arg Glu Gly Asp Cys Ile Ser Leu Pro Gly Ala
 945 950 955 960
 Leu Pro Gly Pro Ile Arg Pro Leu Ser Glu Asp Asp Pro Arg Arg Val
 965 970 975
 Ser Ile Ser Ser Ser Lys Gly Met Asp Val His Asn Gln Glu Glu Arg
 980 985 990
 Pro Arg Lys Thr Leu Val Ser Lys Ala Ile Ser Ala Pro Leu Leu Gly
 995 1000 1005
 Ser Ser Val Asp Leu Glu Glu Ser Ile Pro Glu Gly Met Val Asp Ala
 1010 1015 1020
 Ala Ser Tyr Ala Ala Asn Leu Thr Asp Ser Ala Glu Ala Pro Lys Gly
 1025 1030 1035 1040
 Ser Pro Gly Ser Trp Trp Lys Lys Glu Leu Ser Gly Ser Ser Ser Ala
 1045 1050 1055
 Pro Lys Leu Glu Tyr Thr Val Arg Thr Asp Thr Gln Ser Pro Thr Asn
 1060 1065 1070
 Thr Gly Ser Pro Ser Ser Pro Gln Gln Lys Ser Glu Gly Leu Gly Ser
 1075 1080 1085
 Arg His Arg Pro Val Ala Arg Val Ser Pro His Cys Lys Arg Ser Glu
 1090 1095 1100
 Ala Glu Ala Lys Pro Ser Gly Ser Gln Thr Val Asn Leu Thr Gly Arg
 1105 1110 1115 1120
 Ala Asn Asp Pro Cys Asp Leu Asp Ser Arg Val Gln Ala Thr Ser Val
 1125 1130 1135
 Lys Val Thr Val Ala Gly Phe Gln Pro Gly Gly Ala Val Glu Lys Glu
 1140 1145 1150
 Ser Leu Gly Lys Leu Thr Thr Gly Asp Ala Cys Val Ser Thr Ser Cys
 1155 1160 1165
 Glu Leu Ala Ser Ala Leu Ser His Leu Asp Ala Ser His Leu Thr Glu
 1170 1175 1180
 Asn Leu Pro Lys Ala Ala Ser Glu Leu Gly Gln Gln Pro Met Thr Glu
 1185 1190 1195 1200
 Leu Asp Ser Ser Ser Asp Leu Ile Ser Ser Pro Gly Lys Lys Gly Ala
 1205 1210 1215
 Ala His Pro Asp Pro Ser Lys Thr Ser Val Asp Thr Gly Lys Val Ser
 1220 1225 1230
 Arg Pro Glu Asn Pro Ser Gln Pro Ala Ser Pro Arg Val Ala Lys Cys
 1235 1240 1245

Lys Ala Arg Ser Pro Val Arg Leu Pro His Glu Gly Ser Pro Ser Pro
 1250 1255 1260
 Gly Glu Lys Ala Ala Ala Pro Pro Asp Tyr Ser Lys Thr Arg Ser Ala
 1265 1270 1275 1280
 Ser Glu Thr Ser Thr Pro His Asn Thr Arg Arg Val Ala Ala Leu Arg
 1285 1290 1295
 Gly Ala Gly Pro Gly Ala Glu Gly Met Thr Pro Ala Gly Ala Val Leu
 1300 1305 1310
 Pro Gly Asp Pro Leu Thr Ser Gln Glu Gln Arg Gln Gly Ala Pro Gly
 1315 1320 1325
 Asn His Ser Lys Ala Leu Glu Met Thr Gly Ile His Ala Pro Glu Ser
 1330 1335 1340
 Ser Gln Glu Pro Ser Leu Leu Glu Gly Ala Asp Ser Val Ser Ser Arg
 1345 1350 1355 1360
 Ala Pro Gln Ala Ser Leu Ser Met Leu Pro Ser Thr Asp Asn Thr Lys
 1365 1370 1375
 Glu Ala Cys Gly His Val Ser Gly His Cys Cys Pro Gly Gly Ser Arg
 1380 1385 1390
 Glu Ser Pro Val Thr Asp Ile Asp Ser Phe Ile Lys Glu Leu Asp Ala
 1395 1400 1405
 Ser Ala Ala Arg Ser Pro Ser Ser Gln Thr Gly Asp Ser Gly Ser Gln
 1410 1415 1420
 Glu Gly Ser Ala Gln Gly His Pro Pro Ala Gly Ala Gly Gly Gly Ser
 1425 1430 1435 1440
 Ser Cys Arg Ala Glu Pro Val Pro Gly Gly Gln Thr Ser Ser Pro Arg
 1445 1450 1455
 Arg Ala Trp Ala Ala Gly Ala Pro Ala Tyr Pro Gln Trp Ala Ser Gln
 1460 1465 1470
 Pro Ser Val Leu Asp Ser Ile Asn Pro Asp Lys His Phe Thr Val Asn
 1475 1480 1485
 Lys Asn Phe Leu Ser Asn Tyr Ser Arg Asn Phe Ser Ser Phe His Glu
 1490 1495 1500
 Asp Ser Thr Ser Leu Ser Gly Leu Gly Asp Ser Thr Glu Pro Ser Leu
 1505 1510 1515 1520
 Ser Ser Met Tyr Gly Asp Ala Glu Asp Ser Ser Ser Asp Pro Glu Ser
 1525 1530 1535
 Leu Thr Glu Ala Pro Arg Ala Ser Ala Arg Asp Gly Trp Ser Pro Pro
 1540 1545 1550

Arg Ser Arg Val Ser Leu His Lys Glu Asp Pro Ser Glu Ser Glu Glu
 1555 1560 1565
 Glu Gln Ile Glu Ile Cys Ser Thr Arg Gly Cys Pro Asn Pro Pro Ser
 1570 1575 1580
 Ser Pro Ala His Leu Pro Thr Gln Ala Ala Ile Cys Pro Ala Ser Ala
 1585 1590 1595 1600
 Lys Val Leu Ser Leu Lys Tyr Ser Thr Pro Arg Glu Ser Val Ala Ser
 1605 1610 1615
 Pro Arg Glu Lys Val Ala Cys Leu Pro Gly Ser Tyr Thr Ser Gly Pro
 1620 1625 1630
 Asp Ser Ser Gln Pro Ser Ser Leu Leu Glu Met Ser Ser Gln Glu His
 1635 1640 1645
 Glu Thr His Ala Asp Ile Ser Thr Ser Gln Asn His Arg Pro Ser Cys
 1650 1655 1660
 Ala Glu Glu Thr Thr Glu Val Thr Ser Ala Ser Ser Ala Met Glu Asn
 1665 1670 1675 1680
 Ser Pro Leu Ser Lys Val Ala Arg His Phe His Ser Pro Pro Ile Ile
 1685 1690 1695
 Leu Ser Ser Pro Asn Met Val Asn Gly Leu Glu His Asp Leu Leu Asp
 1700 1705 1710
 Asp Glu Thr Leu Asn Gln Tyr Glu Thr Ser Ile Asn Ala Ala Ala Ser
 1715 1720 1725
 Leu Ser Ser Phe Ser Val Asp Val Pro Lys Asn Gly Glu Ser Val Leu
 1730 1735 1740
 Glu Asn Leu His Ile Ser Glu Ser Gln Asp Leu Asp Asp Leu Leu Gln
 1745 1750 1755 1760
 Lys Pro Lys Met Ile Ala Arg Arg Pro Ile Met Ala Trp Phe Lys Glu
 1765 1770 1775
 Ile Asn Lys His Asn Gln Gly Thr His Leu Arg Ser Lys Thr Glu Lys
 1780 1785 1790
 Glu Gln Pro Leu Met Pro Ala Arg Ser Pro Asp Ser Lys Ile Gln Met
 1795 1800 1805
 Val Ser Ser Ser Gln Lys Lys Gly Val Thr Val Pro His Ser Pro Pro
 1810 1815 1820
 Gln Pro Lys Thr Asn Leu Glu Asn Lys Asp Leu Ser Lys Lys Ser Pro
 1825 1830 1835 1840
 Ala Glu Met Leu Leu Thr Asn Gly Gln Lys Ala Lys Cys Gly Pro Lys
 1845 1850 1855

Leu Lys Arg Leu Ser Leu Lys Gly Lys Ala Lys Val Asn Ser Glu Ala
 1860 1865 1870
 Pro Ala Ala Asn Ala Val Lys Ala Gly Gly Thr Asp His Arg Lys Pro
 1875 1880 1885
 Leu Ile Ser Pro Gln Thr Ser His Lys Thr Leu Ser Lys Ala Val Ser
 1890 1895 1900
 Gln Arg Leu His Val Ala Asp His Glu Asp Pro Asp Arg Asn Thr Thr
 1905 1910 1915 1920
 Ala Ala Pro Arg Ser Pro Gln Cys Val Leu Glu Ser Lys Pro Pro Leu
 1925 1930 1935
 Ala Thr Ser Gly Pro Leu Lys Pro Ser Val Ser Asp Thr Ser Ile Arg
 1940 1945 1950
 Thr Phe Val Ser Pro Leu Thr Ser Pro Lys Pro Val Pro Glu Gln Gly
 1955 1960 1965
 Met Trp Ser Arg Phe His Met Ala Val Leu Ser Glu Pro Asp Arg Gly
 1970 1975 1980
 Cys Pro Thr Thr Pro Lys Ser Pro Lys Cys Arg Ala Glu Gly Arg Ala
 1985 1990 1995 2000
 Pro Arg Ala Asp Ser Gly Pro Val Ser Pro Ala Ala Ser Arg Asn Gly
 2005 2010 2015
 Met Ser Val Ala Gly Asn Arg Gln Ser Glu Pro Arg Leu Ala Ser His
 2020 2025 2030
 Val Ala Ala Asp Thr Ala Gln Pro Arg Pro Thr Gly Glu Lys Gly Gly
 2035 2040 2045
 Asn Ile Met Ala Ser Asp Arg Leu Glu Arg Thr Asn Gln Leu Lys Ile
 2050 2055 2060
 Val Glu Ile Ser Ala Glu Ala Val Ser Glu Thr Val Cys Gly Asn Lys
 2065 2070 2075 2080
 Pro Ala Glu Ser Asp Arg Arg Gly Gly Cys Leu Ala Gln Gly Asn Cys
 2085 2090 2095
 Gln Glu Lys Ser Glu Ile Arg Leu Tyr Arg Gln Val Ala Glu Ser Ser
 2100 2105 2110
 Thr Ser His Pro Ser Ser Leu Pro Ser His Ala Ser Gln Ala Glu Gln
 2115 2120 2125
 Glu Met Ser Arg Ser Phe Ser Met Ala Lys Leu Ala Ser Ser Ser Ser
 2130 2135 2140
 Ser Leu Gln Thr Ala Ile Arg Lys Ala Glu Tyr Ser Gln Gly Lys Ser
 2145 2150 2155 2160

Ser Leu Met Ser Asp Ser Arg Gly Val Pro Arg Asn Ser Ile Pro Gly
 2165 2170 2175
 Gly Pro Ser Gly Glu Asp His Leu Tyr Phe Thr Pro Arg Pro Ala Thr
 2180 2185 2190
 Arg Thr Tyr Ser Met Pro Ala Gln Phe Ser Ser His Phe Gly Arg Glu
 2195 2200 2205
 Gly His Pro Pro His Ser Leu Gly Arg Ser Arg Asp Ser Gln Val Pro
 2210 2215 2220
 Val Thr Ser Ser Val Val Pro Glu Ala Lys Ala Ser Arg Gly Gly Leu
 2225 2230 2235 2240
 Pro Ser Leu Ala Asn Gly Gln Gly Ile Tyr Ser Val Lys Pro Leu Leu
 2245 2250 2255
 Asp Thr Ser Arg Asn Leu Pro Ala Thr Asp Glu Gly Asp Ile Ile Ser
 2260 2265 2270
 Val Gln Glu Thr Ser Cys Leu Val Thr Asp Lys Ile Lys Val Thr Arg
 2275 2280 2285
 Arg His Tyr Cys Tyr Glu Gln Asn Trp Pro His Glu Ser Thr Ser Phe
 2290 2295 2300
 Phe Ser Val Lys Gln Arg Ile Lys Ser Phe Glu Asn Leu Ala Asn Ala
 2305 2310 2315 2320
 Asp Arg Pro Val Ala Lys Ser Gly Ala Ser Pro Phe Leu Ser Val Ser
 2325 2330 2335
 Ser Lys Pro Pro Ile Gly Arg Arg Ser Ser Gly Ser Ile Val Ser Gly
 2340 2345 2350
 Ser Leu Gly His Pro Gly Asp Ala Ala Ala Arg Leu Leu Arg Arg Ser
 2355 2360 2365
 Leu Ser Ser Cys Ser Glu Asn Gln Ser Glu Ala Gly Thr Leu Leu Pro
 2370 2375 2380
 Gln Met Ala Lys Ser Pro Ser Ile Met Thr Leu Thr Ile Ser Arg Gln
 2385 2390 2395 2400
 Asn Pro Pro Glu Thr Ser Ser Lys Gly Ser Asp Ser Glu Leu Lys Lys
 2405 2410 2415
 Ser Leu Gly Pro Leu Gly Ile Pro Thr Pro Thr Met Thr Leu Ala Ser
 2420 2425 2430
 Pro Val Lys Arg Asn Lys Ser Ser Val Arg His Thr Gln Pro Ser Pro
 2435 2440 2445
 Val Ser Arg Ser Lys Leu Gln Glu Leu Arg Ala Leu Ser Met Pro Asp
 2450 2455 2460

Leu Asp Lys Leu Cys Ser Glu Asp Tyr Ser Ala Gly Pro Ser Ala Val
 2465 2470 2475 2480

Leu Phe Lys Thr Glu Leu Glu Ile Thr Pro Arg Arg Ser Pro Gly Pro
 2485 2490 2495

Pro Ala Gly Gly Val Ser Cys Pro Glu Lys Gly Gly Asn Arg Ala Cys
 2500 2505 2510

Pro Gly Gly Ser Gly Pro Lys Thr Ser Ala Ala Glu Thr Pro Ser Ser
 2515 2520 2525

Ala Ser Asp Thr Gly Glu Ala Ala Gln Asp Leu Pro Phe Arg Arg Ser
 2530 2535 2540

Trp Ser Val Asn Leu Asp Gln Leu Leu Val Ser Ala Gly Asp Gln Gln
 2545 2550 2555 2560

Arg Leu Gln Ser Val Leu Ser Ser Val Gly Ser Lys Ser Thr Ile Leu
 2565 2570 2575

Thr Leu Ile Gln Glu Ala Lys Ala Gln Ser Glu Asn Glu Glu Asp Val
 2580 2585 2590

Cys Phe Ile Val Leu Asn Arg Lys Glu Gly Ser Gly Leu Gly Phe Ser
 2595 2600 2605

Val Ala Gly Gly Thr Asp Val Glu Pro Lys Ser Ile Thr Val His Arg
 2610 2615 2620

Val Phe Ser Gln Gly Ala Ala Ser Gln Glu Gly Thr Met Asn Arg Gly
 2625 2630 2635 2640

Asp Phe Leu Leu Ser Val Asn Gly Ala Ser Leu Ala Gly Leu Ala His
 2645 2650 2655

Gly Asn Val Leu Lys Val Leu His Gln Ala Gln Leu His Lys Asp Ala
 2660 2665 2670

Leu Val Val Ile Lys Lys Gly Met Asp Gln Pro Arg Pro Ser Ala Arg
 2675 2680 2685

Gln Glu Pro Pro Thr Ala Asn Gly Lys Gly Leu Leu Ser Arg Lys Thr
 2690 2695 2700

Ile Pro Leu Glu Pro Gly Ile Gly Arg Ser Val Ala Val His Asp Ala
 2705 2710 2715 2720

Leu Cys Val Glu Val Leu Lys Thr Ser Ala Gly Leu Gly Leu Ser Leu
 2725 2730 2735

Asp Gly Gly Lys Ser Ser Val Thr Gly Asp Gly Pro Leu Val Ile Lys
 2740 2745 2750

Arg Val Tyr Lys Gly Gly Ala Ala Glu Gln Ala Gly Ile Ile Glu Ala
 2755 2760 2765

Gly Asp Glu Ile Leu Ala Ile Asn Gly Lys Pro Leu Val Gly Leu Met
 2770 2775 2780

His Phe Asp Ala Trp Asn Ile Met Lys Ser Val Pro Glu Gly Pro Val
 2785 2790 2795 2800

Gln Leu Leu Ile Arg Lys His Arg Asn Ser Ser
 2805 2810

<210> 28

<211> 798

<212> PRT

<213> Homo sapiens

<400> 28

Met Leu Ile Asn Cys Glu Ala Lys Gly Ile Lys Met Val Ser Glu Ile
 1 5 10 15

Ser Val Pro Pro Ser Arg Pro Phe Gln Leu Ser Leu Leu Asn Asn Gly
 20 25 30

Leu Thr Met Leu His Thr Asn Asp Phe Ser Gly Leu Thr Asn Ala Ile
 35 40 45

Ser Ile His Leu Gly Phe Asn Asn Ile Ala Asp Ile Glu Ile Gly Ala
 50 55 60

Phe Asn Gly Leu Gly Leu Leu Lys Gln Leu His Ile Asn His Asn Ser
 65 70 75 80

Leu Glu Ile Leu Lys Glu Asp Thr Phe His Gly Leu Glu Asn Leu Glu
 85 90 95

Phe Leu Gln Ala Asp Asn Asn Phe Ile Thr Val Ile Glu Pro Ser Ala
 100 105 110

Phe Ser Lys Leu Asn Arg Leu Lys Val Leu Ile Leu Asn Asp Asn Ala
 115 120 125

Ile Glu Ser Leu Pro Pro Asn Ile Phe Arg Phe Val Pro Leu Thr His
 130 135 140

Leu Asp Leu Arg Gly Asn Gln Leu Gln Thr Leu Pro Tyr Val Gly Phe
 145 150 155 160

Leu Glu His Ile Gly Arg Ile Leu Asp Leu Gln Leu Glu Asp Asn Lys
 165 170 175

Trp Ala Cys Asn Cys Asp Leu Leu Gln Leu Lys Thr Trp Leu Glu Asn
 180 185 190

Met Pro Pro Gln Ser Ile Ile Gly Asp Val Val Cys Asn Ser Pro Pro
 195 200 205

Phe Phe Lys Gly Ser Ile Leu Ser Arg Leu Lys Lys Glu Ser Ile Cys
 210 215 220

Pro Thr Pro Pro Val Tyr Glu Glu His Glu Asp Pro Ser Gly Ser Leu
 225 230 235 240
 His Leu Ala Ala Thr Ser Ser Ile Asn Asp Ser Arg Met Ser Thr Lys
 245 250 255
 Thr Thr Ser Ile Leu Lys Leu Pro Thr Lys Ala Pro Gly Leu Ile Pro
 260 265 270
 Tyr Ile Thr Lys Pro Ser Thr Gln Leu Pro Gly Pro Tyr Cys Pro Ile
 275 280 285
 Pro Cys Asn Cys Lys Val Leu Ser Pro Ser Gly Leu Leu Ile His Cys
 290 295 300
 Gln Glu Arg Asn Ile Glu Ser Leu Ser Asp Leu Arg Pro Pro Pro Gln
 305 310 315 320
 Asn Pro Arg Lys Leu Ile Leu Ala Gly Asn Ile Ile His Ser Leu Met
 325 330 335
 Lys Ser Asp Leu Val Glu Tyr Phe Thr Leu Glu Met Leu His Leu Gly
 340 345 350
 Asn Asn Arg Ile Glu Val Leu Glu Glu Gly Ser Phe Met Asn Leu Thr
 355 360 365
 Arg Leu Gln Lys Leu Tyr Leu Asn Gly Asn His Leu Thr Lys Leu Ser
 370 375 380
 Lys Gly Met Phe Leu Gly Leu His Asn Leu Glu Tyr Leu Tyr Leu Glu
 385 390 395 400
 Tyr Asn Ala Ile Lys Glu Ile Leu Pro Gly Thr Phe Asn Pro Met Pro
 405 410 415
 Lys Leu Lys Val Leu Tyr Leu Asn Asn Asn Leu Leu Gln Val Leu Pro
 420 425 430
 Pro His Ile Phe Ser Gly Val Pro Leu Thr Lys Val Asn Leu Lys Thr
 435 440 445
 Asn Gln Phe Thr His Leu Pro Val Ser Asn Ile Leu Asp Asp Leu Asp
 450 455 460
 Leu Leu Thr Gln Ile Asp Leu Glu Asp Asn Pro Trp Asp Cys Ser Cys
 465 470 475 480
 Asp Leu Val Gly Leu Gln Gln Trp Ile Gln Lys Leu Ser Lys Asn Thr
 485 490 495
 Val Thr Asp Asp Ile Leu Cys Thr Ser Pro Gly His Leu Asp Lys Lys
 500 505 510
 Glu Leu Lys Ala Leu Asn Ser Glu Ile Leu Cys Pro Gly Leu Val Asn
 515 520 525

Asn Pro Ser Met Pro Thr Gln Thr Ser Tyr Leu Met Val Thr Thr Pro
 530 535 540
 Ala Thr Thr Thr Asn Thr Ala Asp Thr Ile Leu Arg Ser Leu Thr Asp
 545 550 555 560
 Ala Val Pro Leu Ser Val Leu Ile Leu Gly Leu Leu Ile Met Phe Ile
 565 570 575
 Thr Ile Val Phe Cys Ala Ala Gly Ile Val Val Leu Val Leu His Arg
 580 585 590
 Arg Arg Arg Tyr Lys Lys Lys Gln Val Asp Glu Gln Met Arg Asp Asn
 595 600 605
 Ser Pro Val His Leu Gln Tyr Ser Met Tyr Gly His Lys Thr Thr His
 610 615 620
 His Thr Thr Glu Arg Pro Ser Ala Ser Leu Tyr Glu Gln His Met Val
 625 630 635 640
 Ser Pro Met Val His Val Tyr Arg Ser Pro Ser Phe Gly Pro Lys His
 645 650 655
 Leu Glu Glu Glu Glu Glu Arg Asn Glu Lys Glu Gly Ser Asp Ala Lys
 660 665 670
 His Leu Gln Arg Ser Leu Leu Glu Gln Glu Asn His Ser Pro Leu Thr
 675 680 685
 Gly Ser Asn Met Lys Tyr Lys Thr Thr Asn Gln Ser Thr Glu Phe Leu
 690 695 700
 Ser Phe Gln Asp Ala Ser Ser Leu Tyr Arg Asn Ile Leu Glu Lys Glu
 705 710 715 720
 Arg Glu Leu Gln Gln Leu Gly Ile Thr Glu Tyr Leu Arg Lys Asn Ile
 725 730 735
 Ala Gln Leu Gln Pro Asp Met Glu Ala His Tyr Pro Gly Ala His Glu
 740 745 750
 Glu Leu Lys Leu Met Glu Thr Leu Met Tyr Ser Arg Pro Arg Lys Val
 755 760 765
 Leu Val Glu Gln Thr Lys Asn Glu Tyr Phe Glu Leu Lys Ala Asn Leu
 770 775 780
 His Ala Glu Pro Asp Tyr Leu Glu Val Leu Glu Gln Gln Thr
 785 790 795

<210> 29
 <211> 440
 <212> PRT
 <213> Homo sapiens

<400> 29

Met	Leu	Ile	Asn	Cys	Glu	Ala	Lys	Gly	Ile	Lys	Met	Val	Ser	Glu	Ile	1	5	10	15
Ser	Val	Pro	Pro	Ser	Arg	Pro	Phe	Gln	Leu	Ser	Leu	Leu	Asn	Asn	Gly	20	25	30	
Leu	Thr	Met	Leu	His	Thr	Asn	Asp	Phe	Ser	Gly	Leu	Thr	Asn	Ala	Ile	35	40	45	
Ser	Ile	His	Leu	Gly	Phe	Asn	Asn	Ile	Ala	Asp	Ile	Glu	Ile	Gly	Ala	50	55	60	
Phe	Asn	Gly	Leu	Gly	Leu	Leu	Lys	Gln	Leu	His	Ile	Asn	His	Asn	Ser	65	70	75	80
Leu	Glu	Ile	Leu	Lys	Glu	Asp	Thr	Phe	His	Gly	Leu	Glu	Asn	Leu	Glu	85	90	95	
Phe	Leu	Gln	Ala	Asp	Asn	Asn	Phe	Ile	Thr	Val	Ile	Glu	Pro	Ser	Ala	100	105	110	
Phe	Ser	Lys	Leu	Asn	Arg	Leu	Lys	Val	Leu	Ile	Leu	Asn	Asp	Asn	Ala	115	120	125	
Ile	Glu	Ser	Leu	Pro	Pro	Asn	Ile	Phe	Arg	Phe	Val	Pro	Leu	Thr	His	130	135	140	
Leu	Asp	Leu	Arg	Gly	Asn	Gln	Leu	Gln	Thr	Leu	Pro	Tyr	Val	Gly	Phe	145	150	155	160
Leu	Glu	His	Ile	Gly	Arg	Ile	Leu	Asp	Leu	Gln	Leu	Glu	Asp	Asn	Lys	165	170	175	
Trp	Ala	Cys	Asn	Cys	Asp	Leu	Leu	Gln	Leu	Lys	Thr	Trp	Leu	Glu	Asn	180	185	190	
Met	Pro	Pro	Gln	Ser	Ile	Ile	Gly	Asp	Val	Val	Cys	Asn	Ser	Pro	Pro	195	200	205	
Phe	Phe	Lys	Gly	Ser	Ile	Leu	Ser	Arg	Leu	Lys	Lys	Glu	Ser	Ile	Cys	210	215	220	
Pro	Thr	Pro	Pro	Val	Tyr	Glu	Glu	His	Glu	Asp	Pro	Ser	Gly	Ser	Leu	225	230	235	240
His	Leu	Ala	Ala	Thr	Ser	Ser	Ile	Asn	Asp	Ser	Arg	Met	Ser	Thr	Lys	245	250	255	
Thr	Thr	Ser	Ile	Leu	Lys	Leu	Pro	Thr	Lys	Ala	Pro	Gly	Leu	Ile	Pro	260	265	270	
Tyr	Ile	Thr	Lys	Pro	Ser	Thr	Gln	Leu	Pro	Gly	Pro	Tyr	Cys	Pro	Ile	275	280	285	
Pro	Cys	Asn	Cys	Lys	Val	Leu	Ser	Pro	Ser	Gly	Leu	Leu	Ile	His	Cys				

Asn Ile Glu Gly Gly Ala Phe Leu Gly Leu Ser Ala Leu Lys Gln Leu
 115 120 125
 His Leu Asn Asn Asn Glu Leu Lys Ile Leu Arg Ala Asp Thr Phe Leu
 130 135 140
 Gly Ile Glu Asn Leu Glu Tyr Leu Gln Ala Asp Tyr Asn Leu Ile Lys
 145 150 155 160
 Tyr Ile Glu Arg Gly Ala Phe Asn Lys Leu His Lys Leu Lys Val Leu
 165 170 175
 Ile Leu Asn Asp Asn Leu Ile Ser Phe Leu Pro Asp Asn Ile Phe Arg
 180 185 190
 Phe Ala Ser Leu Thr His Leu Asp Ile Arg Gly Asn Arg Ile Gln Lys
 195 200 205
 Leu Pro Tyr Ile Gly Val Leu Glu His Ile Gly Arg Val Val Glu Leu
 210 215 220
 Gln Leu Glu Asp Asn Pro Trp Asn Cys Ser Cys Asp Leu Leu Pro Leu
 225 230 235 240
 Lys Ala Trp Leu Glu Asn Met Pro Tyr Asn Ile Tyr Ile Gly Glu Ala
 245 250 255
 Ile Cys Glu Thr Pro Ser Asp Leu Tyr Gly Arg Leu Leu Lys Glu Thr
 260 265 270
 Asn Lys Gln Glu Leu Cys Pro Met Gly Thr Gly Ser Asp Phe Asp Val
 275 280 285
 Arg Ile Leu Pro Pro Ser Gln Leu Glu Asn Gly Tyr Thr Thr Pro Asn
 290 295 300
 Gly His Thr Thr Gln Thr Ser Leu His Arg Leu Val Thr Lys Pro Pro
 305 310 315 320
 Lys Thr Thr Asn Pro Ser Lys Ile Ser Gly Ile Val Ala Gly Lys Ala
 325 330 335
 Leu Ser Asn Arg Asn Leu Ser Gln Ile Val Ser Tyr Gln Thr Arg Val
 340 345 350
 Pro Pro Leu Thr Pro Cys Pro Ala Pro Cys Phe Cys Lys Thr His Pro
 355 360 365
 Ser Asp Leu Gly Leu Ser Val Asn Cys Gln Glu Lys Asn Ile Gln Ser
 370 375 380
 Met Ser Glu Leu Ile Pro Lys Pro Leu Asn Ala Lys Lys Leu His Val
 385 390 395 400
 Asn Gly Asn Ser Ile Lys Asp Val Asp Val Ser Asp Phe Thr Asp Phe
 405 410 415

Glu Gly Leu Asp Leu Leu His Leu Gly Ser Asn Gln Ile Thr Val Ile
 420 425 430
 Lys Gly Asp Val Phe His Asn Leu Thr Asn Leu Arg Arg Leu Tyr Leu
 435 440 445
 Asn Gly Asn Gln Ile Glu Arg Leu Tyr Pro Glu Ile Phe Ser Gly Leu
 450 455 460
 His Asn Leu Gln Tyr Leu Tyr Leu Glu Tyr Asn Leu Ile Lys Glu Ile
 465 470 475 480
 Ser Ala Gly Thr Phe Asp Ser Met Pro Asn Leu Gln Leu Leu Tyr Leu
 485 490 495
 Asn Asn Asn Leu Leu Lys Ser Leu Pro Val Tyr Ile Phe Ser Gly Ala
 500 505 510
 Pro Leu Ala Arg Leu Asn Leu Arg Asn Asn Lys Phe Met Tyr Leu Pro
 515 520 525
 Val Ser Gly Val Leu Asp Gln Leu Gln Ser Leu Thr Gln Ile Asp Leu
 530 535 540
 Glu Gly Asn Pro Trp Asp Cys Thr Cys Asp Leu Val Ala Leu Lys Leu
 545 550 555 560
 Trp Val Glu Lys Leu Ser Asp Gly Ile Val Val Lys Glu Leu Lys Cys
 565 570 575
 Glu Thr Pro Val Gln Phe Ala Asn Ile Glu Leu Lys Ser Leu Lys Asn
 580 585 590
 Glu Ile Leu Cys Pro Lys Leu Leu Asn Lys Pro Ser Ala Pro Phe Thr
 595 600 605
 Ser Pro Ala Pro Ala Ile Thr Phe Thr Thr Pro Leu Gly Pro Ile Arg
 610 615 620
 Ser Pro Pro Gly Gly Pro Val Pro Leu Ser Ile Leu Ile Leu Ser Ile
 625 630 635 640
 Leu Val Val Leu Ile Leu Thr Val Phe Val Ala Phe Cys Leu Leu Val
 645 650 655
 Phe Val Leu Arg Arg Asn Lys Lys Pro Thr Val Lys His Glu Gly Leu
 660 665 670
 Gly Asn Pro Asp Cys Gly Ser Met Gln Leu Gln Leu Arg Lys His Asp
 675 680 685
 His Lys Thr Asn Lys Lys Asp Gly Leu Ser Thr Glu Ala Phe Ile Pro
 690 695 700
 Gln Thr Ile Glu Gln Met Ser Lys Ser His Thr Cys Gly Leu Lys Glu
 705 710 715 720

Ser Glu Thr Gly Phe Met Phe Ser Asp Pro Pro Gly Gln Lys Val Val
 725 730 735
 Met Arg Asn Val Ala Asp Lys Glu Lys Asp Leu Leu His Val Asp Thr
 740 745 750
 Arg Lys Arg Leu Ser Thr Ile Asp Glu Leu Asp Glu Leu Phe Pro Ser
 755 760 765
 Arg Asp Ser Asn Val Phe Ile Gln Asn Phe Leu Glu Ser Lys Lys Glu
 770 775 780
 Tyr Asn Ser Ile Gly Val Ser Gly Phe Glu Ile Arg Tyr Pro Glu Lys
 785 790 795 800
 Gln Pro Asp Lys Lys Ser Lys Lys Ser Leu Ile Gly Gly Asn His Ser
 805 810 815
 Lys Ile Val Val Glu Gln Arg Lys Ser Glu Tyr Phe Glu Leu Lys Ala
 820 825 830
 Lys Leu Gln Ser Ser Pro Asp Tyr Leu Gln Val Leu Glu Glu Gln Thr
 835 840 845
 Ala Leu Asn Lys Ile
 850

<210> 31
 <211> 314
 <212> PRT
 <213> Homo sapiens

<400> 31
 Leu Gln Gln Trp Ile Gln Lys Leu Ser Lys Asn Thr Val Thr Asp Asp
 1 5 10 15
 Ile Leu Cys Thr Ser Pro Gly His Leu Asp Lys Lys Glu Leu Lys Ala
 20 25 30
 Leu Asn Ser Glu Ile Leu Cys Pro Gly Leu Val Asn Asn Pro Ser Met
 35 40 45
 Pro Thr Gln Thr Ser Tyr Leu Met Val Thr Thr Pro Ala Thr Thr Thr
 50 55 60
 Asn Thr Ala Asp Thr Ile Leu Arg Ser Leu Thr Asp Ala Val Pro Leu
 65 70 75 80
 Ser Val Leu Ile Leu Gly Leu Leu Ile Met Phe Ile Thr Ile Val Phe
 85 90 95
 Cys Ala Ala Gly Ile Val Val Leu Val Leu His Arg Arg Arg Arg Tyr
 100 105 110
 Lys Lys Lys Gln Val Asp Glu Gln Met Arg Asp Asn Ser Pro Val His
 115 120 125

Leu Gln Tyr Ser Met Tyr Gly His Lys Thr Thr His His Thr Thr Glu
 130 135 140
 Arg Pro Ser Ala Ser Leu Tyr Glu Gln His Met Val Ser Pro Met Val
 145 150 155 160
 His Val Tyr Arg Ser Pro Ser Phe Gly Pro Lys His Leu Glu Glu Glu
 165 170 175
 Glu Glu Arg Asn Glu Lys Glu Gly Ser Asp Ala Lys His Leu Gln Arg
 180 185 190
 Ser Leu Leu Glu Gln Glu Asn His Ser Pro Leu Thr Gly Ser Asn Met
 195 200 205
 Lys Tyr Lys Thr Thr Asn Gln Ser Thr Glu Phe Leu Ser Phe Gln Asp
 210 215 220
 Ala Ser Ser Leu Tyr Arg Asn Ile Leu Glu Lys Glu Arg Glu Leu Gln
 225 230 235 240
 Gln Leu Gly Ile Thr Glu Tyr Leu Arg Lys Asn Ile Ala Gln Leu Gln
 245 250 255
 Pro Asp Met Glu Ala His Tyr Pro Gly Ala His Glu Glu Leu Lys Leu
 260 265 270
 Met Glu Thr Leu Met Tyr Ser Arg Pro Arg Lys Val Leu Val Glu Gln
 275 280 285
 Thr Lys Asn Glu Tyr Phe Glu Leu Lys Ala Asn Leu His Ala Glu Pro
 290 295 300
 Asp Tyr Leu Glu Val Leu Glu Gln Gln Thr
 305 310

<210> 32
 <211> 966
 <212> PRT
 <213> Homo sapiens

<400> 32
 Arg Arg Gly Ala Gln Gly Gly Lys Met His Thr Cys Cys Pro Pro Val
 1 5 10 15
 Thr Leu Glu Gln Asp Leu His Arg Lys Met His Ser Trp Met Leu Gln
 20 25 30
 Thr Leu Ala Phe Ala Val Thr Ser Leu Val Leu Ser Cys Ala Glu Thr
 35 40 45
 Ile Asp Tyr Tyr Gly Glu Ile Cys Asp Asn Ala Cys Pro Cys Glu Glu
 50 55 60
 Lys Asp Gly Ile Leu Thr Val Ser Cys Glu Asn Arg Gly Ile Ile Ser

65	70					75					80				
Leu Ser Glu Ile Ser Pro Pro Arg Phe Pro Ile Tyr His Leu Leu Leu	85					90					95				
Ser Gly Asn Leu Leu Asn Arg Leu Tyr Pro Asn Glu Phe Val Asn Tyr	100					105					110				
Thr Gly Ala Ser Ile Leu His Leu Gly Ser Asn Val Ile Gln Asp Ile	115					120					125				
Glu Thr Gly Ala Phe His Gly Leu Arg Gly Leu Arg Arg Leu His Leu	130					135					140				
Asn Asn Asn Lys Leu Glu Leu Leu Arg Asp Asp Thr Phe Leu Gly Leu	145					150					155				
Glu Asn Leu Glu Tyr Leu Gln Val Asp Tyr Asn Tyr Ile Ser Val Ile	165					170					175				
Glu Pro Asn Ala Phe Gly Lys Leu His Leu Leu Gln Val Leu Ile Leu	180					185					190				
Asn Asp Asn Leu Leu Ser Ser Leu Pro Asn Asn Leu Phe Arg Phe Val	195					200					205				
Pro Leu Thr His Leu Asp Leu Arg Gly Asn Arg Leu Lys Leu Leu Pro	210					215					220				
Tyr Val Gly Leu Leu Gln His Met Asp Lys Val Val Glu Leu Gln Leu	225					230					235				
Glu Glu Asn Pro Trp Asn Cys Ser Cys Glu Leu Ile Ser Leu Lys Asp	245					250					255				
Trp Leu Asp Ser Ile Ser Tyr Ser Ala Leu Val Gly Asp Val Val Cys	260					265					270				
Glu Thr Pro Phe Arg Leu His Gly Arg Asp Leu Asp Glu Val Ser Lys	275					280					285				
Gln Glu Leu Cys Pro Arg Arg Leu Ile Ser Asp Tyr Glu Met Arg Pro	290					295					300				
Gln Thr Pro Leu Ser Thr Thr Gly Tyr Leu His Thr Thr Pro Ala Ser	305					310					315				
Val Asn Ser Val Ala Thr Ser Ser Ser Ala Val Tyr Lys Pro Pro Leu	325					330					335				
Lys Pro Pro Lys Gly Thr Arg Gln Pro Asn Lys Pro Arg Val Arg Pro	340					345					350				
Thr Ser Arg Gln Pro Ser Lys Asp Leu Gly Tyr Ser Asn Tyr Gly Pro	355					360					365				
Ser Ile Ala Tyr Gln Thr Lys Ser Pro Val Pro Leu Glu Cys Pro Thr															

370					375					380					
Ala	Cys	Ser	Cys	Asn	Leu	Gln	Ile	Ser	Asp	Leu	Gly	Leu	Asn	Val	Asn
385					390					395					400
Cys	Gln	Glu	Arg	Lys	Ile	Glu	Ser	Ile	Ala	Glu	Leu	Gln	Pro	Lys	Pro
				405					410					415	
Tyr	Asn	Pro	Lys	Lys	Met	Tyr	Leu	Thr	Glu	Asn	Tyr	Ile	Ala	Val	Val
			420					425					430		
Arg	Arg	Thr	Asp	Phe	Leu	Glu	Ala	Thr	Gly	Leu	Asp	Leu	Leu	His	Leu
		435					440					445			
Gly	Asn	Asn	Arg	Ile	Ser	Met	Ile	Gln	Asp	Arg	Ala	Phe	Gly	Asp	Leu
	450					455					460				
Thr	Asn	Leu	Arg	Arg	Leu	Tyr	Leu	Asn	Gly	Asn	Arg	Ile	Glu	Arg	Leu
465					470					475					480
Ser	Pro	Glu	Leu	Phe	Tyr	Gly	Leu	Gln	Ser	Leu	Gln	Tyr	Leu	Phe	Leu
				485					490					495	
Gln	Tyr	Asn	Leu	Ile	Arg	Glu	Ile	Gln	Ser	Gly	Thr	Phe	Asp	Pro	Val
			500					505					510		
Pro	Asn	Leu	Gln	Leu	Leu	Phe	Leu	Asn	Asn	Asn	Leu	Leu	Gln	Ala	Met
		515					520					525			
Pro	Ser	Gly	Val	Phe	Ser	Gly	Leu	Thr	Leu	Leu	Arg	Leu	Asn	Leu	Arg
	530					535					540				
Ser	Asn	His	Phe	Thr	Ser	Leu	Pro	Val	Ser	Gly	Val	Leu	Asp	Gln	Leu
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Lys	Ser	Leu	Ile	Gln	Ile	Asp	Leu	His	Asp	Asn	Pro	Trp	Asp	Cys	Thr
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Cys	Asp	Ile	Val	Gly	Met	Lys	Leu	Trp	Val	Glu	Gln	Leu	Lys	Val	Gly
			580					585					590		
Val	Leu	Val	Asp	Glu	Val	Ile	Cys	Lys	Ala	Pro	Lys	Lys	Phe	Ala	Glu
		595					600					605			
Thr	Asp	Met	Arg	Ser	Ile	Lys	Ser	Glu	Leu	Leu	Cys	Pro	Asp	Tyr	Ser
	610					615					620				
Asp	Val	Val	Val	Ser	Thr	Pro	Thr	Pro	Ser	Ser	Ile	Gln	Val	Pro	Ala
625					630					635					640
Arg	Thr	Ser	Ala	Val	Thr	Pro	Ala	Val	Arg	Leu	Asn	Ser	Thr	Gly	Ala
			645						650					655	
Pro	Ala	Ser	Leu	Gly	Ala	Gly	Gly	Gly	Ala	Ser	Ser	Val	Pro	Leu	Ser
			660				665						670		
Val	Leu	Ile	Leu	Ser	Leu	Leu	Leu	Val	Phe	Ile	Met	Ser	Val	Phe	Val

675					680					685						
Ala	Ala	Gly	Leu	Phe	Val	Leu	Val	Met	Lys	Arg	Arg	Lys	Lys	Asn	Gln	
690					695					700						
Ser	Asp	His	Thr	Ser	Thr	Asn	Asn	Ser	Asp	Val	Ser	Ser	Phe	Asn	Met	
705					710					715					720	
Gln	Tyr	Ser	Val	Tyr	Gly	Gly	Gly	Gly	Gly	Thr	Gly	Gly	His	Pro	His	
725					730					735						
Ala	His	Val	His	His	Arg	Gly	Pro	Ala	Leu	Pro	Lys	Val	Lys	Thr	Pro	
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Ala	Gly	His	Val	Tyr	Glu	Tyr	Ile	Pro	His	Pro	Leu	Gly	His	Met	Cys	
755					760					765						
Lys	Asn	Pro	Ile	Tyr	Arg	Ser	Arg	Glu	Gly	Asn	Ser	Val	Glu	Asp	Tyr	
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Lys	Asp	Leu	His	Glu	Leu	Lys	Val	Thr	Tyr	Ser	Ser	Asn	His	His	Leu	
785					790					795					800	
Gln	Gln	Gln	Gln	Gln	Pro	Pro	Pro	Pro	Pro	Gln	Gln	Pro	Gln	Gln	Gln	
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Pro	Pro	Pro	Gln	Leu	Gln	Leu	Gln	Pro	Gly	Glu	Glu	Glu	Arg	Arg	Glu	
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Ser	His	His	Leu	Arg	Ser	Pro	Ala	Tyr	Ser	Val	Ser	Thr	Ile	Glu	Pro	
835					840					845						
Arg	Glu	Asp	Leu	Leu	Ser	Pro	Val	Gln	Asp	Ala	Asp	Arg	Phe	Tyr	Arg	
850					855					860						
Gly	Ile	Leu	Glu	Pro	Asp	Lys	His	Cys	Ser	Thr	Thr	Pro	Ala	Gly	Asn	
865					870					875					880	
Ser	Leu	Pro	Glu	Tyr	Pro	Lys	Phe	Pro	Cys	Ser	Pro	Ala	Ala	Tyr	Thr	
885					890					895						
Phe	Ser	Pro	Asn	Tyr	Asp	Leu	Arg	Arg	Pro	His	Gln	Tyr	Leu	His	Pro	
900					905					910						
Gly	Ala	Gly	Asp	Ser	Arg	Leu	Arg	Glu	Pro	Val	Leu	Tyr	Ser	Pro	Pro	
915					920					925						
Ser	Ala	Val	Phe	Val	Glu	Pro	Asn	Arg	Asn	Glu	Tyr	Leu	Glu	Leu	Lys	
930					935					940						
Ala	Lys	Leu	Asn	Val	Glu	Pro	Asp	Tyr	Leu	Glu	Val	Leu	Glu	Lys	Gln	
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<400> 33

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      35              40              45

Leu Cys Leu Pro Arg Val Leu Ser Arg Ala Leu Pro Pro Pro Pro Leu
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Leu Pro Leu Leu Phe Ser Leu Leu Leu Leu Pro Leu Pro Arg Glu Ala
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Glu Ala Ala Ala Val Ala Ala Ala Val Ser Gly Ser Ala Ala Ala Glu
      85              90              95

Ala Lys Glu Cys Asp Arg Pro Cys Val Asn Gly Gly Arg Cys Asn Pro
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Gly Thr Gly Gln Cys Val Cys Pro Thr Gly Trp Val Gly Glu Gln Cys
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Gln His Cys Gly Gly Arg Phe Arg Leu Thr Gly Ser Ser Gly Phe Val
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Thr Asp Gly Pro Gly Asn Tyr Lys Tyr Lys Thr Lys Cys Thr Trp Leu
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Ile Glu Gly Tyr Pro Asn Ala Val Leu Arg Leu Arg Phe Asn His Phe
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Ala Thr Glu Cys Ser Trp Asp His Leu Tyr Val Tyr Asp Gly Asp Ser
      180             185             190

Ile Tyr Ala Pro Leu Ile Ala Ala Phe Ser Gly Leu Ile Val Pro Glu
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Arg Asp Gly Asn Glu Thr Ala Pro Glu Val Thr Val Thr Ser Gly Tyr
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Ala Leu Leu His Phe Phe Ser Asp Ala Ala Tyr Asn Leu Thr Gly Phe
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Asn Ile Thr Tyr Asn Phe Asp Met Cys Pro Asn Asn Cys Ser Ala Arg
      245             250             255

Gly Glu Cys Lys Ser Ser Asn Ser Ser Ser Ala Val Glu Cys Glu Cys
      260             265             270

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Ser Glu Asn Trp Lys Gly Glu Ser Cys Asp Ile Pro His Cys Thr Asp
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 Asn Cys Gly Phe Pro His Arg Gly Ile Cys Asn Ala Ser Asp Thr Arg
 290 295 300
 Gly Cys Ser Cys Phe Pro His Trp Gln Gly Pro Gly Cys Ser Ile Pro
 305 310 315 320
 Val Pro Ala Asn Gln Ser Phe Trp Thr Arg Glu Glu Tyr Ser Asp Leu
 325 330 335
 Lys Leu Pro Arg Ala Ser His Lys Ala Val Val Asn Gly Asn Ile Met
 340 345 350
 Trp Val Val Gly Gly Tyr Met Phe Asn His Ser Asp Tyr Ser Met Val
 355 360 365
 Leu Ala Tyr Asp Leu Thr Ser Arg Glu Trp Leu Pro Leu Asn His Ser
 370 375 380
 Val Asn Ser Val Val Val Arg Tyr Gly His Ser Leu Ala Leu His Lys
 385 390 395 400
 Asp Lys Ile Tyr Met Tyr Gly Gly Lys Ile Asp Ser Thr Gly Asn Val
 405 410 415
 Thr Asn Glu Leu Arg Val Phe His Ile His Asn Glu Ser Trp Val Leu
 420 425 430
 Leu Thr Pro Lys Ala Lys Asp Gln Tyr Ala Val Val Gly His Ser Ala
 435 440 445
 His Ile Val Thr Leu Ala Ser Gly Arg Val Val Met Leu Val Ile Phe
 450 455 460
 Gly His Cys Pro Leu Tyr Gly Tyr Ile Ser Val Val Gln Glu Tyr Asp
 465 470 475 480
 Leu Glu Lys Asn Thr Trp Ser Ile Leu His Thr Gln Gly Ala Leu Val
 485 490 495
 Gln Gly Gly Tyr Gly His Ser Ser Ala Tyr Asp Asp Arg Thr Lys Ala
 500 505 510
 Leu Tyr Val His Gly Gly Tyr Lys Ala Phe Ser Ala Asn Lys Tyr Arg
 515 520 525
 Leu Ala Asp Asp Leu Tyr Arg Tyr Asp Val Asp Thr Gln Met Trp Thr
 530 535 540
 Ile Leu Lys Asp Ser Arg Phe Phe Arg Tyr Leu His Thr Ala Val Ile
 545 550 555 560
 Val Ser Gly Thr Met Leu Val Phe Gly Gly Asn Thr His Asn Asp Thr
 565 570 575

Ser Met Ser His Gly Ala Lys Cys Phe Ser Ser Asp Phe Met Ala Tyr
 580 585 590
 Asp Ile Ala Cys Asp Arg Trp Ser Val Leu Pro Arg Pro Glu Leu His
 595 600 605
 His Asp Val Asn Arg Phe Gly His Ser Ala Val Leu Tyr Asn Ser Thr
 610 615 620
 Met Tyr Val Phe Gly Gly Phe Asn Ser Leu Leu Leu Ser Asp Val Leu
 625 630 635 640
 Val Phe Thr Ser Glu Gln Cys Asp Ala His Arg Ser Glu Ala Ala Cys
 645 650 655
 Val Ala Ala Gly Pro Gly Ile Arg Cys Leu Trp Asp Thr Gln Ser Ser
 660 665 670
 Arg Cys Thr Ser Trp Glu Leu Ala Thr Glu Glu Gln Ala Glu Lys Leu
 675 680 685
 Lys Ser Glu Cys Phe Ser Lys Arg Thr Leu Asp His Asp Arg Cys Asp
 690 695 700
 Gln His Thr Asp Cys Tyr Ser Cys Thr Ala Asn Thr Asn Asp Cys His
 705 710 715 720
 Trp Cys Asn Asp His Cys Val Pro Val Asn His Ser Cys Thr Glu Gly
 725 730 735
 Gln Ile Ser Ile Ala Lys Tyr Glu Ser Cys Pro Lys Asp Asn Pro Met
 740 745 750
 Tyr Tyr Cys Asn Lys Lys Thr Ser Cys Arg Ser Cys Ala Leu Asp Gln
 755 760 765
 Asn Cys Gln Trp Glu Pro Arg Asn Gln Glu Cys Ile Ala Leu Pro Glu
 770 775 780
 Asn Ile Cys Gly Asn Gly Trp His Leu Val Gly Asn Ser Cys Leu Lys
 785 790 795 800
 Ile Thr Thr Ala Lys Glu Asn Tyr Asp Asn Ala Lys Leu Ser Cys Arg
 805 810 815
 Asn His Asn Ala Phe Leu Ala Ser Leu Thr Ser Gln Lys Lys Val Glu
 820 825 830
 Leu Val Leu Lys Gln Leu Arg Leu Met Gln Ser Ser Gln Ser Met Ser
 835 840 845
 Lys Leu Thr Leu Thr Pro Trp Val Gly Leu Arg Lys Ile Asn Val Ser
 850 855 860
 Tyr Trp Cys Trp Glu Asp Met Ser Pro Phe Thr Asn Ser Leu Leu Gln
 865 870 875 880

Trp Met Pro Ser Glu Pro Ser Asp Ala Gly Phe Cys Gly Ile Leu Ser
 885 890 895
 Glu Pro Ser Thr Arg Gly Leu Lys Ala Ala Thr Cys Ile Asn Pro Leu
 900 905 910
 Asn Gly Ser Val Cys Glu Arg Pro Ala Asn His Ser Ala Lys Gln Cys
 915 920 925
 Arg Thr Pro Cys Ala Leu Arg Thr Ala Cys Gly Glu Cys Thr Ser Ser
 930 935 940
 Ser Ser Glu Cys Met Trp Cys Ser Asn Met Lys Gln Cys Val Asp Ser
 945 950 955 960
 Asn Ala Tyr Val Ala Ser Phe Pro Phe Gly Gln Cys Met Glu Trp Tyr
 965 970 975
 Thr Met Ser Ser Cys Pro Pro Glu Asn Cys Ser Gly Tyr Cys Thr Cys
 980 985 990
 Ser His Cys Leu Glu Gln Pro Gly Cys Gly Trp Cys Thr Asp Pro Ser
 995 1000 1005
 Asn Thr Gly Lys Gly Lys Cys Ile Glu Gly Ser Tyr Lys Gly Pro Val
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 Lys Met Pro Ser Gln Ala Ser Ala Gly Asn Val Tyr Pro Gln Pro Leu
 1025 1030 1035 1040
 Leu Asn Ser Ser Met Cys Leu Glu Asp Ser Arg Tyr Asn Trp Ser Phe
 1045 1050 1055
 Ile His Cys Pro Ala Cys Gln Cys Asn Gly His Ser Lys Cys Ile Asn
 1060 1065 1070
 Gln Ser Val Cys Glu Lys Cys Glu Asp Leu Thr Thr Gly Lys His Cys
 1075 1080 1085
 Glu Thr Cys Ile Ser Gly Phe Tyr Gly Asp Pro Thr Asn Gly Gly Lys
 1090 1095 1100
 Cys Gln Pro Cys Lys Cys Asn Gly His Ala Ser Leu Cys Asn Thr Asn
 1105 1110 1115 1120
 Thr Gly Lys Cys Phe Cys Thr Thr Lys Gly Val Lys Gly Asp Glu Cys
 1125 1130 1135
 Gln Leu Cys Lys Val Glu Asn Arg Tyr Gln Gly Asn Pro Leu Lys Gly
 1140 1145 1150
 Thr Cys Tyr Tyr Thr Leu Leu Ile Asp Tyr Gln Phe Thr Phe Ser Leu
 1155 1160 1165
 Ser Gln Gly Asp Asp Arg Tyr Tyr Thr Ala Ile Asn Phe Val Ala Thr
 1170 1175 1180

Pro Asp Glu Gln Asn Arg Asp Phe Asp Met Phe Ile Asn Ala Ser Lys
 1185 1190 1195 1200
 Lys Phe Asn Leu Asn Ile Thr Trp Ala Thr Ser Phe Pro Ala Gly Thr
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 Gln Thr Gly Glu Glu Val Pro Val Val Ser Lys Thr Asn Ile Lys Glu
 1220 1225 1230
 Tyr Lys Asp Ser Phe Ser Asn Glu Lys Phe Asp Phe Arg Asn His Pro
 1235 1240 1245
 Asn Ile Thr Phe Phe Val Tyr Val Ser Asn Phe Thr Trp Pro Ile Lys
 1250 1255 1260
 Ile Gln Ile Ala Phe Ser Gln His Ser Asn Phe Met Asp Leu Val Gln
 1265 1270 1275 1280
 Phe Phe Val Thr Phe Phe Ser Cys Phe Leu Ser Leu Leu Leu Val Ala
 1285 1290 1295
 Ala Val Val Trp Lys Ile Lys Gln Ser Cys Trp Ala Ser Arg Arg Arg
 1300 1305 1310
 Glu Gln Leu Leu Arg Glu Met Gln Gln Met Ala Ser Arg Pro Phe Ala
 1315 1320 1325
 Ser Val Asn Val Ala Leu Glu Thr Asp Glu Glu Pro Pro Asp Leu Ile
 1330 1335 1340
 Gly Gly Ser Ile Lys Thr Val Pro Lys Pro Ile Ala Leu Glu Pro Cys
 1345 1350 1355 1360
 Phe Gly Asn Lys Ala Ala Val Leu Ser Val Phe Val Arg Leu Pro Arg
 1365 1370 1375
 Gly Leu Gly Gly Ile Pro Pro Pro Gly Gln Ser Gly Leu Ala Val Ala
 1380 1385 1390
 Ser Ala Leu Val Asp Ile Ser Gln Gln Met Pro Ile Val Tyr Lys Glu
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 Gly Thr Cys Ile
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 Leu Cys Leu Pro Arg Val Leu Ser Arg Ala Leu Pro Pro Pro Pro Leu
 50 55 60
 Leu Pro Leu Leu Phe Ser Leu Leu Leu Leu Pro Leu Pro Arg Glu Ala
 65 70 75 80
 Glu Ala Ala Ala Val Ala Ala Ala Val Ser Gly Ser Ala Ala Ala Glu
 85 90 95
 Ala Lys Glu Cys Asp Arg Pro Cys Val Asn Gly Gly Arg Cys Asn Pro
 100 105 110
 Gly Thr Gly Gln Cys Val Cys Pro Thr Gly Trp Val Gly Glu Gln Cys
 115 120 125
 Gln His Cys Gly Gly Arg Phe Arg Leu Thr Gly Ser Ser Gly Phe Val
 130 135 140
 Thr Asp Gly Pro Gly Asn Tyr Lys Tyr Lys Thr Lys Cys Thr Trp Leu
 145 150 155 160
 Ile Glu Gly Gln Pro Asn Arg Ile Met Arg Leu Arg Phe Asn His Phe
 165 170 175
 Ala Thr Glu Cys Ser Trp Asp His Leu Tyr Val Tyr Asp Gly Asp Ser
 180 185 190
 Ile Tyr Ala Pro Leu Ile Ala Ala Phe Ser Gly Leu Ile Val Pro Glu
 195 200 205
 Arg Asp Gly Asn Glu Thr Ala Pro Glu Val Thr Val Thr Ser Gly Tyr
 210 215 220
 Ala Leu Leu His Phe Phe Ser Asp Ala Ala Tyr Asn Leu Thr Gly Phe
 225 230 235 240
 Asn Ile Thr Tyr Asn Phe Asp Met Cys Pro Asn Asn Cys Ser Gly Arg
 245 250 255
 Gly Glu Cys Lys Ser Ser Asn Ser Ser Ser Ala Val Glu Cys Glu Cys
 260 265 270
 Ser Glu Asn Trp Lys Gly Glu Ser Cys Asp Ile Pro His Cys Thr Asp
 275 280 285
 Asn Cys Gly Phe Pro His Arg Gly Ile Cys Asn Ala Ser Asp Thr Arg
 290 295 300
 Gly Cys Ser Cys Phe Pro His Trp Gln Gly Pro Gly Cys Ser Ile Pro
 305 310 315 320

Val Pro Ala Asn Gln Ser Phe Trp Thr Arg Glu Glu Tyr Ser Asp Leu
 325 330 335
 Lys Leu Pro Arg Ala Ser His Lys Ala Val Val Asn Gly Asn Ile Met
 340 345 350
 Trp Val Val Gly Gly Tyr Met Phe Asn His Ser Asp Tyr Ser Met Val
 355 360 365
 Leu Ala Tyr Asp Leu Thr Ser Arg Glu Trp Leu Pro Leu Asn His Ser
 370 375 380
 Val Asn Ser Val Val Val Arg Tyr Gly His Ser Leu Ala Leu His Lys
 385 390 395 400
 Asp Lys Ile Tyr Met Tyr Gly Gly Lys Ile Asp Ser Thr Gly Asn Val
 405 410 415
 Thr Asn Glu Leu Arg Val Phe His Ile His Asn Glu Ser Trp Val Leu
 420 425 430
 Leu Thr Pro Lys Ala Lys Asp Gln Tyr Ala Val Val Gly His Ser Ala
 435 440 445
 His Ile Val Thr Leu Ala Ser Gly Arg Val Val Met Leu Val Ile Phe
 450 455 460
 Gly His Cys Pro Leu Tyr Gly Tyr Ile Ser Val Val Gln Glu Tyr Asp
 465 470 475 480
 Leu Glu Lys Asn Thr Trp Ser Ile Leu His Thr Gln Gly Ala Leu Val
 485 490 495
 Gln Gly Gly Tyr Gly His Ser Ser Val Tyr Asp Asp Arg Thr Lys Ala
 500 505 510
 Leu Tyr Val His Gly Gly Tyr Lys Ala Phe Ser Ala Asn Lys Tyr Arg
 515 520 525
 Leu Ala Asp Asp Leu Tyr Arg Tyr Asp Val Asp Thr Gln Met Trp Thr
 530 535 540
 Ile Leu Lys Asp Ser Arg Phe Phe Arg Tyr Leu His Thr Ala Val Ile
 545 550 555 560
 Val Ser Gly Thr Met Leu Val Phe Gly Gly Asn Thr His Asn Asp Thr
 565 570 575
 Ser Met Ser His Gly Ala Lys Cys Phe Ser Ser Asp Phe Met Ala Tyr
 580 585 590
 Asp Ile Ala Cys Asp Arg Trp Ser Val Leu Pro Arg Pro Glu Leu His
 595 600 605
 His Asp Val Asn Arg Phe Gly His Ser Ala Val Leu Tyr Asn Ser Thr
 610 615 620

Met	Tyr	Val	Phe	Gly	Gly	Phe	Asn	Ser	Leu	Leu	Leu	Ser	Asp	Val	Leu	625	630	635	640
Val	Phe	Thr	Ser	Glu	Gln	Cys	Asp	Ala	His	Arg	Ser	Glu	Ala	Ala	Cys	645	650	655	
Val	Ala	Ala	Gly	Pro	Gly	Ile	Arg	Cys	Leu	Trp	Asp	Thr	Gln	Ser	Ser	660	665	670	
Arg	Cys	Thr	Ser	Trp	Glu	Leu	Ala	Thr	Glu	Glu	Gln	Ala	Glu	Lys	Leu	675	680	685	
Lys	Ser	Glu	Cys	Phe	Ser	Lys	Arg	Thr	Leu	Asp	His	Asp	Arg	Cys	Asp	690	695	700	
Gln	His	Thr	Asp	Cys	Tyr	Ser	Cys	Thr	Ala	Asn	Thr	Asn	Asp	Cys	His	705	710	715	720
Trp	Cys	Asn	Asp	His	Cys	Val	Pro	Val	Asn	His	Ser	Cys	Thr	Glu	Gly	725	730	735	
Gln	Ile	Ser	Ile	Ala	Lys	Tyr	Glu	Ser	Cys	Pro	Lys	Asp	Asn	Pro	Met	740	745	750	
Tyr	Tyr	Cys	Asn	Lys	Lys	Thr	Ser	Cys	Arg	Ser	Cys	Ala	Leu	Asp	Gln	755	760	765	
Asn	Cys	Gln	Trp	Glu	Pro	Arg	Asn	Gln	Glu	Cys	Ile	Ala	Leu	Pro	Glu	770	775	780	
Asn	Ile	Cys	Gly	Asn	Gly	Trp	His	Leu	Val	Gly	Asn	Ser	Cys	Leu	Lys	785	790	795	800
Ile	Thr	Thr	Ala	Lys	Glu	Asn	Tyr	Asp	Asn	Ala	Lys	Leu	Ser	Cys	Arg	805	810	815	
Asn	His	Asn	Ala	Phe	Leu	Ala	Ser	Leu	Thr	Ser	Gln	Lys	Lys	Val	Glu	820	825	830	
Phe	Val	Leu	Lys	Gln	Leu	Arg	Leu	Met	Gln	Ser	Ser	Gln	Ser	Met	Ser	835	840	845	
Lys	Leu	Thr	Leu	Thr	Pro	Trp	Val	Gly	Leu	Arg	Lys	Ile	Asn	Val	Ser	850	855	860	
Tyr	Trp	Cys	Trp	Glu	Asp	Met	Ser	Pro	Phe	Thr	Asn	Ser	Leu	Leu	Gln	865	870	875	880
Trp	Met	Pro	Ser	Glu	Pro	Ser	Asp	Ala	Gly	Phe	Cys	Gly	Ile	Leu	Ser	885	890	895	
Glu	Pro	Ser	Thr	Arg	Gly	Leu	Lys	Ala	Ala	Thr	Cys	Ile	Asn	Pro	Leu	900	905	910	
Asn	Gly	Ser	Val	Cys	Glu	Arg	Pro	Ala	Asn	His	Ser	Ala	Lys	Gln	Cys	915	920	925	

Arg Thr Pro Cys Ala Leu Arg Thr Ala Cys Gly Glu Cys Thr Ser Ser
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 945 950 955 960
 Asn Ala Tyr Val Ala Ser Phe Pro Phe Gly Gln Cys Met Glu Trp Tyr
 965 970 975
 Thr Met Ser Ser Cys Pro Pro Glu Asn Cys Ser Gly Tyr Cys Thr Cys
 980 985 990
 Ser His Cys Leu Glu Gln Pro Gly Cys Gly Trp Cys Thr Asp Pro Ser
 995 1000 1005
 Asn Thr Gly Lys Gly Lys Cys Ile Glu Gly Ser Tyr Lys Gly Pro Val
 1010 1015 1020
 Lys Met Pro Ser Gln Ala Ser Ala Gly Asn Val Tyr Pro Gln Pro Leu
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 Glu Thr Cys Ile Ser Gly Phe Tyr Gly Asp Pro Thr Asn Gly Gly Lys
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 Thr Cys Tyr Tyr Thr Leu Leu Ile Asp Tyr Gln Phe Thr Phe Ser Leu
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 Ser Gln Glu Asp Asp Arg Tyr Tyr Thr Ala Ile Asn Phe Val Ala Thr
 1170 1175 1180
 Pro Asp Glu Gln Asn Arg Asp Leu Asp Met Phe Ile Asn Ala Ser Lys
 1185 1190 1195 1200
 Asn Phe Asn Leu Asn Ile Thr Trp Ala Thr Ser Phe Pro Ala Gly Thr
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 Gln Thr Gly Glu Glu Val Pro Val Val Ser Lys Thr Asn Ile Lys Glu
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Tyr Lys Asp Ser Phe Ser Asn Glu Lys Phe Asp Phe Arg Asn His Pro
 1235 1240 1245
 Asn Ile Thr Phe Phe Val Tyr Val Ser Asn Phe Thr Trp Pro Ile Lys
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 1330 1335 1340
 Gly Gly Ser Ile Lys Thr Val Pro Lys Pro Ile Ala Leu Glu Pro Cys
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 Phe Gly Asn Lys Ala Ala Val Leu Ser Val Phe Val Arg Leu Pro Arg
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 Gly Leu Gly Gly Ile Pro Pro Pro Gly Gln Ser Gly Leu Ala Val Ala
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 Ser Ala Leu Val Asp Ile Ser Gln Gln Met Pro Ile Val Tyr Lys Glu
 1395 1400 1405
 Lys Ser Gly Ala Val Arg Asn Arg Lys Gln Gln Pro Pro Ala Gln Pro
 1410 1415 1420
 Gly Thr Cys Ile
 1425

<210> 35
 <211> 1198
 <212> PRT
 <213> Homo sapiens

<400> 35
 Met Val Ala Ala Ala Ala Thr Glu Ala Arg Leu Arg Arg Arg Thr
 1 5 10 15
 Ala Ala Thr Ala Ala Leu Ala Gly Arg Ser Gly Gly Pro His Cys Val
 20 25 30
 Asn Gly Gly Arg Cys Asn Pro Gly Thr Gly Gln Cys Val Cys Pro Ala
 35 40 45
 Gly Trp Val Gly Glu Gln Cys Gln His Cys Gly Gly Arg Phe Arg Leu

50					55					60					
Thr	Gly	Ser	Ser	Gly	Phe	Val	Thr	Asp	Gly	Pro	Gly	Asn	Tyr	Lys	Tyr
65					70					75					80
Lys	Thr	Lys	Cys	Thr	Trp	Leu	Ile	Glu	Gly	Gln	Pro	Asn	Arg	Ile	Met
			85						90					95	
Arg	Leu	Arg	Phe	Asn	His	Phe	Ala	Thr	Glu	Cys	Ser	Trp	Asp	His	Leu
			100					105					110		
Tyr	Val	Tyr	Asp	Gly	Asp	Ser	Ile	Tyr	Ala	Pro	Leu	Val	Ala	Ala	Phe
		115					120					125			
Ser	Gly	Leu	Ile	Val	Pro	Glu	Arg	Asp	Gly	Asn	Glu	Thr	Val	Pro	Glu
	130					135					140				
Val	Val	Ala	Thr	Ser	Gly	Tyr	Ala	Leu	Leu	His	Phe	Phe	Ser	Asp	Ala
145					150					155					160
Ala	Tyr	Asn	Leu	Thr	Gly	Phe	Asn	Ile	Thr	Tyr	Ser	Phe	Asp	Met	Cys
			165					170						175	
Pro	Asn	Asn	Cys	Ser	Gly	Arg	Gly	Glu	Cys	Lys	Ile	Ser	Asn	Ser	Ser
			180					185					190		
Asp	Thr	Val	Glu	Cys	Glu	Cys	Ser	Glu	Asn	Trp	Lys	Gly	Glu	Ala	Cys
	195						200					205			
Asp	Ile	Pro	His	Cys	Thr	Asp	Asn	Cys	Gly	Phe	Pro	His	Arg	Gly	Ile
	210					215					220				
Cys	Asn	Ser	Ser	Asp	Val	Arg	Gly	Cys	Ser	Cys	Phe	Ser	Asp	Trp	Gln
225					230					235					240
Gly	Pro	Gly	Cys	Ser	Val	Pro	Val	Pro	Ala	Asn	Gln	Ser	Phe	Trp	Thr
			245						250					255	
Arg	Glu	Glu	Tyr	Ser	Asn	Leu	Lys	Leu	Pro	Arg	Ala	Ser	His	Lys	Ala
			260					265					270		
Val	Val	Asn	Gly	Asn	Ile	Met	Trp	Val	Val	Gly	Gly	Tyr	Met	Phe	Asn
		275					280					285			
His	Ser	Asp	Tyr	Asn	Met	Val	Leu	Ala	Tyr	Asp	Leu	Ala	Ser	Arg	Glu
	290					295					300				
Trp	Leu	Pro	Leu	Asn	Arg	Ser	Val	Asn	Asn	Val	Val	Val	Arg	Tyr	Gly
305					310					315					320
His	Ser	Leu	Ala	Leu	Tyr	Lys	Asp	Lys	Ile	Tyr	Met	Tyr	Gly	Gly	Lys
			325						330					335	
Ile	Asp	Ser	Thr	Gly	Asn	Val	Thr	Asn	Glu	Leu	Arg	Val	Phe	His	Ile
			340					345					350		
His	Asn	Glu	Ser	Trp	Val	Leu	Leu	Thr	Pro	Lys	Ala	Lys	Glu	Gln	Tyr

355	360	365
Ala Val Val Gly His Ser 370	Ala His Ile Val Thr 375	Leu Lys Asn Gly Arg 380
Val Val Met Leu Val 385	Ile Phe Gly His Cys 390	Pro Leu Tyr Gly Tyr Ile 395 400
Ser Asn Val Gln Glu Tyr 405	Asp Leu Asp Lys Asn Thr 410	Trp Ser Ile Leu 415
His Thr Gln Gly Ala Leu 420	Val Gln Gly Gly Tyr Gly 425	His Ser Ser Val 430
Tyr Asp His Arg Thr Arg 435	Ala Leu Tyr Val His Gly 440	Gly Gly Tyr Lys Ala 445
Phe Ser Ala Asn Lys Tyr 450	Arg Leu Ala Asp Asp 455	Leu Tyr Arg Tyr Asp 460
Val Asp Thr Gln Met Trp 465	Thr Ile Leu Lys Asp Ser 470 475	Arg Phe Phe Arg 480
Tyr Leu His Thr Ala Val 485	Ile Val Ser Gly Thr Met 490	Leu Val Phe Gly 495
Gly Asn Thr His Asn Asp 500	Thr Ser Met Ser His Gly 505	Ala Lys Cys Phe 510
Ser Ser Asp Phe Met Ala 515	Tyr Asp Ile Ala Cys Asp 520	Arg Trp Ser Val 525
Leu Pro Arg Pro Asp Ser 530	Thr Met Met Ser Thr Asp 535	Leu Ala Ile Pro 540
Ala Val Leu His Asn Ser 545	Thr Met Tyr Val Phe Gly 550 555	Gly Gly Phe Asn Ser 560
Leu Leu Leu Ser Asp Ile 565	Leu Val Phe Thr Ser Glu 570	Gln Cys Asp Ala 575
His Arg Ser Glu Ala Ala 580	Cys Leu Ala Ala Gly Pro 585	Gly Ile Arg Cys 590
Val Trp Asn Thr Gly Ser 595	Ser Ser Gln Cys Ile Ser 600	Trp Ala Leu Ala Thr 605
Asp Glu Gln Glu Glu Lys 610	Leu Lys Ser Glu Cys Phe 615	Ser Lys Arg Thr 620
Leu Asp His Asp Arg Cys 625	Asp Gln His Thr Asp Cys 630 635	Tyr Ser Cys Thr 640
Ala Asn Thr Asn Asp Cys 645	His Trp Cys Asn Asp His 650	Cys Val Pro Arg 655
Asn His Ser Cys Ser Glu 660	Gly Gln Ile Ser Ile Phe 665	Arg Tyr Glu Asn 670

660					665					670						
Cys	Pro	Lys	Asp	Asn	Pro	Met	Tyr	Tyr	Cys	Asn	Lys	Lys	Thr	Ser	Cys	
675					680					685						
Arg	Ser	Cys	Ala	Leu	Asp	Gln	Asn	Cys	Gln	Trp	Glu	Pro	Arg	Asn	Gln	
690					695					700						
Glu	Cys	Ile	Ala	Leu	Pro	Glu	Asn	Ile	Cys	Gly	Ile	Gly	Trp	His	Leu	
705					710					715					720	
Val	Gly	Asn	Ser	Cys	Leu	Lys	Ile	Thr	Thr	Ala	Lys	Glu	Asn	Tyr	Asp	
725					730					735						
Asn	Ala	Lys	Leu	Phe	Cys	Arg	Asn	His	Asn	Ala	Leu	Leu	Ala	Ser	Leu	
740					745					750						
Thr	Thr	Gln	Lys	Lys	Val	Glu	Phe	Val	Leu	Lys	Gln	Leu	Arg	Ile	Met	
755					760					765						
Gln	Ser	Ser	Gln	Ser	Met	Ser	Lys	Leu	Thr	Leu	Thr	Pro	Trp	Val	Gly	
770					775					780						
Leu	Arg	Lys	Ile	Asn	Val	Ser	Tyr	Trp	Cys	Trp	Glu	Asp	Met	Ser	Pro	
785					790					795					800	
Phe	Thr	Asn	Ser	Leu	Leu	Gln	Trp	Met	Pro	Ser	Glu	Pro	Ser	Asp	Ala	
805					810					815						
Gly	Phe	Cys	Gly	Ile	Leu	Ser	Glu	Pro	Ser	Thr	Arg	Gly	Leu	Lys	Ala	
820					825					830						
Ala	Thr	Cys	Ile	Asn	Pro	Leu	Asn	Gly	Ser	Val	Cys	Glu	Arg	Pro	Ala	
835					840					845						
Asn	His	Ser	Ala	Lys	Gln	Cys	Arg	Thr	Pro	Cys	Ala	Leu	Arg	Thr	Ala	
850					855					860						
Cys	Gly	Asp	Cys	Thr	Ser	Gly	Ser	Ser	Glu	Cys	Met	Trp	Cys	Ser	Asn	
865					870					875					880	
Met	Lys	Gln	Cys	Val	Asp	Ser	Asn	Ala	Tyr	Val	Ala	Ser	Phe	Pro	Phe	
885					890					895						
Gly	Gln	Cys	Met	Glu	Trp	Tyr	Thr	Met	Ser	Thr	Cys	Pro	Pro	Glu	Asn	
900					905					910						
Cys	Ser	Gly	Tyr	Cys	Thr	Cys	Ser	His	Cys	Leu	Glu	Gln	Pro	Gly	Cys	
915					920					925						
Gly	Trp	Cys	Thr	Asp	Pro	Ser	Asn	Thr	Gly	Lys	Gly	Lys	Cys	Ile	Glu	
930					935					940						
Gly	Ser	Tyr	Lys	Gly	Pro	Val	Lys	Met	Pro	Ser	Gln	Ala	Pro	Thr	Gly	
945					950					955					960	
Asn	Phe	Tyr	Pro	Gln	Pro	Leu	Leu	Asn	Ser	Ser	Met	Cys	Leu	Glu	Asp	

965										970										975													
Ser	Arg	Tyr	Asn	Trp	Ser	Phe	Ile	His	Cys	Pro	Ala	Cys	Gln	Cys	Asn																		
			980					985							990																		
Gly	His	Ser	Lys	Cys	Ile	Asn	Gln	Ser	Ile	Cys	Glu	Lys	Cys	Glu	Asn																		
		995				1000						1005																					
Leu	Thr	Thr	Gly	Lys	His	Cys	Glu	Thr	Cys	Ile	Ser	Gly	Phe	Tyr	Gly																		
	1010					1015					1020																						
Asp	Pro	Thr	Asn	Gly	Gly	Lys	Cys	Gln	Pro	Cys	Lys	Cys	Asn	Gly	His																		
1025				1030					1035					1040																			
Ala	Ser	Leu	Cys	Asn	Thr	Asn	Thr	Gly	Lys	Cys	Phe	Cys	Thr	Thr	Lys																		
			1045					1050						1055																			
Gly	Val	Lys	Gly	Asp	Glu	Cys	Gln	Leu	Cys	Glu	Val	Glu	Asn	Arg	Tyr																		
		1060					1065						1070																				
Gln	Gly	Asn	Pro	Leu	Arg	Gly	Thr	Cys	Tyr	Tyr	Thr	Leu	Leu	Ile	Asp																		
	1075					1080						1085																					
Tyr	Gln	Phe	Thr	Phe	Ser	Leu	Ser	Gln	Glu	Asp	Asp	Arg	Tyr	Tyr	Thr																		
	1090					1095					1100																						
Ala	Ile	Asn	Phe	Val	Ala	Thr	Pro	Asp	Glu	Gln	Asn	Arg	Asp	Leu	Asp																		
1105				1110				1115					1120																				
Met	Phe	Ile	Asn	Ala	Ser	Lys	Asn	Phe	Asn	Leu	Asn	Ile	Thr	Trp	Ala																		
			1125					1130					1135																				
Ala	Ser	Phe	Ser	Ala	Gly	Thr	Gln	Ala	Gly	Glu	Glu	Met	Pro	Val	Val																		
		1140					1145					1150																					
Ser	Lys	Thr	Asn	Ile	Lys	Glu	Tyr	Lys	Asp	Ser	Phe	Ser	Asn	Glu	Lys																		
	1155					1160					1165																						
Phe	Asp	Phe	Arg	Asn	His	Pro	Asn	Ile	Thr	Phe	Phe	Val	Tyr	Val	Ser																		
	1170				1175				1180																								
Asn	Phe	Thr	Trp	Pro	Ile	Lys	Ile	Gln	Val	Gln	Thr	Glu	Gln																				
1185				1190				1195																									
<210> 36																																	
<211> 1275																																	
<212> PRT																																	
<213> Rattus norvegicus																																	
<400> 36																																	
Met	Val	Ala	Ala	Ala	Ala	Ala	Ala	Glu	Ala	Thr	Glu	Ala	Arg	Leu	Arg																		
1					5				10					15																			
Gly	Tyr	Thr	Thr	Ala	Thr	Ala	Ala	Pro	Ala	Gly	Trp	Lys	Glu	Arg	Gln																		
		20					25						30																				

His Arg Pro Cys Ala Ala Thr Gly Ala Trp Arg Pro Trp Pro Arg Ala
 35 40 45
 Gly Leu Cys Leu Pro Arg Val Leu Ser Arg Ala Leu Ser Pro Pro Pro
 50 55 60
 Leu Leu Pro Leu Leu Pro Leu Leu Phe Ser Leu Leu Leu Leu Pro Leu
 65 70 75 80
 Pro Arg Glu Ala Glu Ala Ala Ala Val Ala Ala Ala Val Ser Gly Ser
 85 90 95
 Ala Ala Ala Glu Ala Lys Glu Cys Asp Arg Pro Cys Val Asn Gly Gly
 100 105 110
 Arg Cys Asn Pro Gly Thr Gly Gln Cys Val Cys Pro Thr Gly Trp Val
 115 120 125
 Gly Glu Gln Cys Gln His Cys Gly Gly Arg Phe Arg Leu Thr Gly Ser
 130 135 140
 Ser Gly Phe Val Thr Asp Gly Pro Gly Asn Tyr Lys Tyr Lys Thr Lys
 145 150 155 160
 Cys Thr Trp Leu Ile Glu Gly Gln Pro Asn Lys Ile Met Arg Leu Arg
 165 170 175
 Phe Asn His Phe Ala Thr Glu Cys Ser Trp Asp His Leu Tyr Val Tyr
 180 185 190
 Asp Gly Asp Ser Ile Tyr Ala Pro Leu Ile Ala Ala Phe Ser Gly Leu
 195 200 205
 Ile Val Pro Glu Arg Asp Gly Asn Glu Thr Ala Pro Glu Val Thr Val
 210 215 220
 Thr Ser Gly Tyr Ala Leu Leu His Phe Phe Ser Asp Ala Ala Tyr Asn
 225 230 235 240
 Leu Thr Gly Phe Asn Ile Thr Tyr Asn Phe Asp Met Cys Pro Asn Asn
 245 250 255
 Cys Ser Gly Arg Gly Glu Cys Lys Ser Ser Asn Ser Ser Ser Thr Val
 260 265 270
 Glu Cys Glu Cys Ser Glu Asn Trp Lys Gly Glu Ser Cys Asp Ile Pro
 275 280 285
 His Cys Thr Asp Asn Cys Gly Phe Pro His Arg Gly Ile Cys Asn Ala
 290 295 300
 Ser Asp Thr Arg Gly Cys Ser Cys Phe Pro His Trp Gln Gly Pro Gly
 305 310 315 320
 Cys Ser Ile Pro Val Pro Ala Asn Gln Ser Phe Trp Thr Arg Glu Glu
 325 330 335

Tyr Ser Asp Leu Lys Leu Pro Arg Ala Ser His Lys Ala Glu Val Asn
 340 345 350
 Gly Asn Ile Met Trp Val Val Gly Gly Tyr Met Phe Asn His Ser Asp
 355 360 365
 Tyr Ser Met Val Leu Ala Tyr Asp Leu Ala Ser Arg Glu Trp Leu Ser
 370 375 380
 Leu Asn His Ser Val Asn Ser Val Val Val Arg Tyr Gly His Ser Leu
 385 390 395 400
 Ala Leu His Lys Asp Lys Ile Tyr Met Tyr Gly Gly Lys Ile Asp Ser
 405 410 415
 Thr Gly Asn Val Thr Asn Glu Leu Arg Val Phe His Ile His Asn Glu
 420 425 430
 Ser Trp Val Leu Leu Thr Pro Lys Ala Lys Asp Gln Tyr Ala Val Val
 435 440 445
 Gly His Ser Ala His Ile Val Thr Leu Ser Ser Gly Arg Val Val Met
 450 455 460
 Leu Val Ile Phe Gly His Cys Pro Leu Tyr Gly Tyr Ile Ser Val Val
 465 470 475 480
 Gln Glu Tyr Asp Leu Glu Lys Asn Thr Trp Ser Ile Leu Gln Thr Gln
 485 490 495
 Gly Ala Leu Val Gln Gly Gly Tyr Gly His Ser Ser Val Tyr Asp His
 500 505 510
 Arg Thr Lys Ala Leu Tyr Val His Gly Gly Tyr Lys Ala Phe Ser Ala
 515 520 525
 Asn Lys Tyr Arg Leu Ala Asp Asp Leu Tyr Arg Tyr His Val Asp Thr
 530 535 540
 Gln Met Trp Thr Ile Leu Lys Asp Ser Arg Phe Phe Arg Tyr Leu His
 545 550 555 560
 Thr Ala Val Ile Val Ser Gly Thr Met Leu Val Phe Gly Gly Asn Thr
 565 570 575
 His Asn Asp Thr Ser Met Ser His Gly Ala Lys Cys Phe Ser Ser Asp
 580 585 590
 Phe Met Ala Tyr Asp Ile Ala Cys Asp Arg Trp Ser Val Leu Pro Arg
 595 600 605
 Pro Glu Leu His His Asp Val Asn Arg Phe Gly His Ser Ala Val Leu
 610 615 620
 His Asn Ser Thr Met Tyr Val Phe Gly Gly Phe Asn Ser Leu Leu Leu
 625 630 635 640

Ser Asp Val Leu Val Phe Thr Ser Glu Gln Cys Asp Ala His Arg Ser
 645 650 655
 Glu Ala Ala Cys Val Ala Ala Gly Pro Gly Ile Arg Cys Leu Trp Asp
 660 665 670
 Thr Gln Ser Ser Arg Cys Thr Ser Trp Glu Leu Ala Thr Glu Glu Gln
 675 680 685
 Ala Glu Lys Leu Lys Ser Glu Cys Phe Ser Lys Arg Thr Leu Asp His
 690 695 700
 Asp Arg Cys Asp Gln His Thr Asp Cys Tyr Ser Cys Thr Ala Asn Thr
 705 710 715 720
 Asn Asp Cys His Trp Cys Asn Asp His Cys Val Pro Val Asn His Ser
 725 730 735
 Cys Thr Glu Gly Gln Ile Ser Ile Ala Lys Tyr Asp Asn Cys Pro Lys
 740 745 750
 Asp Asn Pro Met Tyr Tyr Cys Asn Lys Lys Thr Ser Cys Arg Ser Cys
 755 760 765
 Ala Leu Asp Gln Asn Cys Gln Trp Glu Pro Arg Asn Gln Glu Cys Ile
 770 775 780
 Ala Leu Pro Glu Asn Ile Cys Gly Ile Gly Trp His Leu Val Gly Asn
 785 790 795 800
 Ser Cys Leu Lys Ile Thr Thr Ala Lys Glu Asn Tyr Asp Asn Ala Lys
 805 810 815
 Leu Ser Cys Arg Asn His Asn Ala Phe Leu Ala Ser Leu Thr Ser Gln
 820 825 830
 Lys Lys Val Glu Phe Val Leu Lys Gln Leu Arg Leu Met Gln Ser Ser
 835 840 845
 Gln Ser Thr Ser Lys Leu Thr Leu Thr Pro Trp Val Gly Leu Arg Lys
 850 855 860
 Ile Asn Val Ser Tyr Trp Cys Trp Glu Asp Met Ser Pro Phe Thr Asn
 865 870 875 880
 Ser Leu Leu Gln Trp Met Pro Ser Glu Pro Ser Asp Ala Gly Phe Cys
 885 890 895
 Gly Ile Leu Ser Glu Pro Ser Thr Arg Gly Leu Lys Ala Ala Thr Cys
 900 905 910
 Ile Asn Pro Leu Asn Gly Ser Val Cys Glu Arg Pro Ala Asn His Ser
 915 920 925
 Ala Lys Gln Cys Arg Thr Pro Cys Ala Leu Arg Thr Ala Cys Gly Glu
 930 935 940

Cys Thr Ser Ser Ser Ser Glu Cys Met Trp Cys Ser Asn Met Lys Gln
 945 950 955 960
 Cys Val Asp Ser Asn Ala Tyr Val Ala Ser Phe Pro Phe Gly Gln Cys
 965 970 975
 Met Glu Trp Tyr Thr Met Ser Ser Cys Pro Pro Glu Asn Cys Ser Gly
 980 985 990
 Tyr Cys Thr Cys Ser His Cys Leu Glu Gln Pro Gly Cys Gly Trp Cys
 995 1000 1005
 Thr Asp Pro Ser Asn Thr Gly Lys Gly Lys Cys Ile Glu Gly Ser Tyr
 1010 1015 1020
 Lys Gly Pro Val Lys Met Pro Ser His Ala Ser Thr Gly Asn Val Tyr
 1025 1030 1035 1040
 Pro Gln Pro Leu Leu Asn Ser Ser Met Cys Leu Glu Asp Ser Arg Tyr
 1045 1050 1055
 Asn Trp Ser Phe Ile His Cys Pro Ala Cys Gln Cys Asn Gly His Ser
 1060 1065 1070
 Lys Cys Ile Asn Gln Ser Ile Cys Glu Lys Cys Glu Asp Leu Thr Thr
 1075 1080 1085
 Gly Lys His Cys Glu Thr Cys Ile Ser Gly Phe Tyr Gly Asp Pro Thr
 1090 1095 1100
 Asn Gly Gly Lys Cys Gln Pro Cys Lys Cys Asn Gly His Ala Ser Leu
 1105 1110 1115 1120
 Cys Asn Thr Asn Thr Gly Lys Cys Phe Cys Thr Thr Lys Gly Val Lys
 1125 1130 1135
 Gly Glu Glu Cys Gln Leu Cys Glu Val Glu Asn Arg Tyr Gln Gly Asn
 1140 1145 1150
 Pro Leu Lys Gly Thr Cys Tyr Tyr Thr Leu Leu Ile Asp Tyr Gln Phe
 1155 1160 1165
 Thr Phe Ser Leu Ser Gln Glu Asp Asp Arg Tyr Tyr Thr Ala Ile Asn
 1170 1175 1180
 Phe Val Ala Thr Pro Asp Glu Gln Asn Arg Asp Leu Asp Met Phe Ile
 1185 1190 1195 1200
 Asn Ala Ser Lys Asn Phe Asn Leu Asn Ile Thr Trp Ala Thr Ser Phe
 1205 1210 1215
 Pro Ala Gly Thr Gln Thr Gly Glu Glu Val Pro Val Val Ser Lys Thr
 1220 1225 1230
 Asn Ile Lys Glu Tyr Lys Asp Ser Phe Ser Asn Glu Lys Phe Asp Phe
 1235 1240 1245

Arg Asn His Pro Asn Ile Thr Phe Phe Val Tyr Val Ser Asn Phe Thr
 1250 1255 1260

Trp Pro Ile Lys Ile Gln Val Arg Val Thr Ser
 1265 1270 1275

<210> 37
 <211> 883
 <212> PRT
 <213> Homo sapiens

<400> 37
 Met Leu Glu Met Asn Ala Arg Ser Leu Gln Gln Lys Leu Glu Thr Glu
 1 5 10 15
 Arg Glu Leu Lys Gln Arg Leu Leu Glu Glu Gln Ala Lys Leu Gln Gln
 20 25 30
 Gln Met Asp Leu Gln Lys Asn His Ile Phe Arg Leu Thr Gln Gly Leu
 35 40 45
 Gln Glu Ala Leu Asp Arg Ala Asp Leu Leu Lys Thr Glu Arg Ser Asp
 50 55 60
 Leu Glu Tyr Gln Leu Glu Asn Ile Gln Val Leu Tyr Ser His Glu Lys
 65 70 75 80
 Val Lys Met Glu Gly Thr Ile Ser Gln Gln Thr Lys Leu Ile Asp Phe
 85 90 95
 Leu Gln Ala Lys Met Asp Gln Pro Ala Lys Lys Lys Lys Val Pro Leu
 100 105 110
 Gln Tyr Asn Glu Leu Lys Leu Ala Leu Glu Lys Glu Lys Ala Arg Cys
 115 120 125
 Ala Glu Leu Glu Glu Ala Leu Gln Lys Thr Arg Ile Glu Leu Arg Ser
 130 135 140
 Ala Arg Glu Glu Ala Ala His Arg Lys Ala Thr Asp His Pro His Pro
 145 150 155 160
 Ser Thr Pro Ala Thr Ala Arg Gln Gln Ile Ala Met Ser Ala Ile Val
 165 170 175
 Arg Ser Pro Glu His Gln Pro Ser Ala Met Ser Leu Leu Ala Pro Pro
 180 185 190
 Ser Ser Arg Arg Lys Glu Ser Ser Thr Pro Glu Glu Phe Ser Arg Arg
 195 200 205
 Leu Lys Glu Arg Met His His Asn Ile Pro His Arg Phe Asn Val Gly
 210 215 220
 Leu Asn Met Arg Ala Thr Lys Cys Ala Val Cys Leu Asp Thr Val His
 225 230 235 240

Phe Gly Arg Gln Ala Ser Lys Cys Leu Glu Cys Gln Val Met Cys His
245 250 255
Pro Lys Cys Ser Thr Cys Leu Pro Ala Thr Cys Gly Leu Pro Ala Glu
260 265 270
Tyr Ala Thr His Phe Thr Glu Ala Phe Cys Arg Asp Lys Met Asn Ser
275 280 285
Pro Gly Leu Gln Thr Lys Glu Pro Ser Ser Ser Leu His Leu Glu Gly
290 295 300
Trp Met Lys Val Pro Arg Asn Asn Lys Arg Gly Gln Gln Gly Trp Asp
305 310 315 320
Arg Lys Tyr Ile Val Leu Glu Gly Ser Lys Val Leu Ile Tyr Asp Asn
325 330 335
Glu Ala Arg Glu Ala Gly Gln Arg Pro Val Glu Glu Phe Glu Leu Cys
340 345 350
Leu Pro Asp Gly Asp Val Ser Ile His Gly Ala Val Gly Ala Ser Glu
355 360 365
Leu Ala Asn Thr Ala Lys Ala Asp Val Pro Tyr Ile Leu Lys Met Glu
370 375 380
Ser His Pro His Thr Thr Cys Trp Pro Gly Arg Thr Leu Tyr Leu Leu
385 390 395 400
Ala Pro Ser Phe Pro Asp Lys Gln Arg Trp Val Thr Ala Leu Glu Ser
405 410 415
Val Val Ala Gly Gly Arg Val Ser Arg Glu Lys Ala Glu Ala Asp Ala
420 425 430
Lys Leu Leu Gly Asn Ser Leu Leu Lys Leu Glu Gly Asp Asp Arg Leu
435 440 445
Asp Met Asn Cys Thr Leu Pro Phe Ser Asp Gln Val Val Leu Val Gly
450 455 460
Thr Glu Glu Gly Leu Tyr Ala Leu Asn Val Leu Lys Asn Ser Leu Thr
465 470 475 480
His Val Pro Gly Ile Gly Ala Val Phe Gln Ile Tyr Ile Ile Lys Asp
485 490 495
Leu Glu Lys Leu Leu Met Ile Ala Gly Glu Glu Arg Ala Leu Cys Leu
500 505 510
Val Asp Val Lys Lys Val Lys Gln Ser Leu Ala Gln Ser His Leu Pro
515 520 525
Ala Gln Pro Asp Ile Ser Pro Asn Ile Phe Glu Ala Val Lys Gly Cys
530 535 540

His Leu Phe Gly Ala Gly Lys Ile Glu Asn Gly Leu Cys Ile Cys Ala
 545 550 555 560
 Ala Met Pro Ser Lys Val Val Ile Leu Arg Tyr Asn Glu Asn Leu Ser
 565 570 575
 Lys Tyr Cys Ile Arg Lys Glu Ile Glu Thr Ser Glu Pro Cys Ser Cys
 580 585 590
 Ile His Phe Thr Asn Tyr Ser Ile Leu Ile Gly Thr Asn Lys Phe Tyr
 595 600 605
 Glu Ile Asp Met Lys Gln Tyr Thr Leu Glu Glu Phe Leu Asp Lys Asn
 610 615 620
 Asp His Ser Leu Ala Pro Ala Val Phe Ala Ala Ser Ser Asn Ser Phe
 625 630 635 640
 Pro Val Ser Ile Val Gln Val Asn Ser Ala Gly Gln Arg Glu Glu Tyr
 645 650 655
 Leu Leu Cys Phe His Glu Phe Gly Val Phe Val Asp Ser Tyr Gly Arg
 660 665 670
 Arg Ser Arg Thr Asp Asp Leu Lys Trp Ser Arg Leu Pro Leu Ala Phe
 675 680 685
 Ala Tyr Arg Glu Pro Tyr Leu Phe Val Thr His Phe Asn Ser Leu Glu
 690 695 700
 Val Ile Glu Ile Gln Ala Arg Ser Ser Ala Gly Thr Pro Ala Arg Ala
 705 710 715 720
 Tyr Leu Asp Ile Pro Asn Pro Arg Tyr Leu Gly Pro Ala Ile Ser Ser
 725 730 735
 Gly Ala Ile Tyr Leu Ala Ser Ser Tyr Gln Asp Lys Leu Arg Val Ile
 740 745 750
 Cys Cys Lys Gly Asn Leu Val Lys Glu Ser Gly Thr Glu His His Arg
 755 760 765
 Gly Pro Ser Thr Ser Arg Ser Ser Pro Asn Lys Arg Gly Pro Pro Thr
 770 775 780
 Tyr Asn Glu His Ile Thr Lys Arg Val Ala Ser Ser Pro Ala Pro Pro
 785 790 795 800
 Glu Gly Pro Ser His Pro Arg Glu Pro Ser Thr Pro His Arg Tyr Arg
 805 810 815
 Glu Gly Arg Thr Glu Leu Arg Arg Asp Lys Ser Pro Gly Arg Pro Leu
 820 825 830
 Glu Arg Glu Lys Ser Pro Gly Arg Met Leu Ser Thr Arg Arg Glu Arg
 835 840 845

Ser Pro Gly Arg Leu Phe Glu Asp Ser Ser Arg Gly Arg Leu Pro Ala
850 855 860

Gly Ala Val Arg Thr Pro Leu Ser Gln Val Asn Lys Val Trp Asp Gln
865 870 875 880

Ser Ser Val

<210> 38
<211> 1286
<212> PRT
<213> Homo sapiens

<400> 38
Val Leu Asp Asn Gln Ile Lys Lys Asp Leu Ala Asp Lys Glu Thr Leu
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Glu Asn Met Met Gln Arg His Glu Glu Glu Ala His Glu Lys Gly Lys
20 25 30

Ile Leu Ser Glu Gln Lys Ala Met Ile Asn Ala Met Asp Ser Lys Ile
35 40 45

Arg Ser Leu Glu Gln Arg Ile Val Glu Leu Ser Glu Ala Asn Lys Leu
50 55 60

Ala Ala Asn Ser Ser Leu Phe Thr Gln Arg Asn Met Lys Ala Gln Glu
65 70 75 80

Glu Met Ile Ser Glu Leu Arg Gln Gln Lys Phe Tyr Leu Glu Thr Gln
85 90 95

Ala Gly Lys Leu Glu Ala Gln Asn Arg Lys Leu Glu Glu Gln Leu Glu
100 105 110

Lys Ile Ser His Gln Asp His Ser Asp Lys Asn Arg Leu Leu Glu Leu
115 120 125

Glu Thr Arg Leu Arg Glu Val Ser Leu Glu His Glu Glu Gln Lys Leu
130 135 140

Glu Leu Lys Arg Gln Leu Thr Glu Leu Gln Leu Ser Leu Gln Glu Arg
145 150 155 160

Glu Ser Gln Leu Thr Ala Leu Gln Ala Ala Arg Ala Ala Leu Glu Ser
165 170 175

Gln Leu Arg Gln Ala Lys Thr Glu Leu Glu Glu Thr Thr Ala Glu Ala
180 185 190

Glu Glu Glu Ile Gln Ala Leu Thr Ala His Arg Asp Glu Ile Gln Arg
195 200 205

Lys Phe Asp Ala Leu Arg Asn Ser Cys Thr Val Ile Thr Asp Leu Glu

210					215					220					
Glu	Gln	Leu	Asn	Gln	Leu	Thr	Glu	Asp	Asn	Ala	Glu	Leu	Asn	Asn	Gln
225					230					235					240
Asn	Phe	Tyr	Leu	Ser	Lys	Gln	Leu	Asp	Glu	Ala	Ser	Gly	Ala	Asn	Asp
				245					250					255	
Glu	Ile	Val	Gln	Leu	Arg	Ser	Glu	Val	Asp	His	Leu	Arg	Arg	Glu	Ile
			260					265					270		
Thr	Glu	Arg	Glu	Met	Gln	Leu	Thr	Ser	Gln	Lys	Gln	Thr	Met	Glu	Ala
			275					280					285		
Leu	Lys	Thr	Thr	Cys	Thr	Met	Leu	Glu	Glu	Gln	Val	Met	Asp	Leu	Glu
	290					295					300				
Ala	Leu	Asn	Asp	Glu	Leu	Leu	Glu	Lys	Glu	Arg	Gln	Trp	Glu	Ala	Trp
305					310					315					320
Arg	Ser	Val	Leu	Gly	Asp	Glu	Lys	Ser	Gln	Phe	Glu	Cys	Arg	Val	Arg
				325					330					335	
Glu	Leu	Gln	Arg	Met	Leu	Asp	Thr	Glu	Lys	Gln	Ser	Arg	Ala	Arg	Ala
			340					345					350		
Asp	Gln	Arg	Ile	Thr	Glu	Ser	Arg	Gln	Val	Val	Glu	Leu	Ala	Val	Lys
			355					360					365		
Glu	His	Lys	Ala	Glu	Ile	Leu	Ala	Leu	Gln	Gln	Ala	Leu	Lys	Glu	Gln
	370					375					380				
Lys	Leu	Lys	Ala	Glu	Ser	Leu	Ser	Asp	Lys	Leu	Asn	Asp	Leu	Glu	Lys
385						390					395				400
Lys	His	Ala	Met	Leu	Glu	Met	Asn	Ala	Arg	Ser	Leu	Gln	Gln	Lys	Leu
			405						410					415	
Glu	Thr	Glu	Arg	Glu	Leu	Lys	Gln	Arg	Leu	Leu	Glu	Glu	Gln	Ala	Lys
			420					425					430		
Leu	Gln	Gln	Gln	Met	Asp	Leu	Gln	Lys	Asn	His	Ile	Phe	Arg	Leu	Thr
			435					440					445		
Gln	Gly	Leu	Gln	Glu	Ala	Leu	Asp	Arg	Ala	Asp	Leu	Leu	Lys	Thr	Glu
	450					455					460				
Arg	Ser	Asp	Leu	Glu	Tyr	Gln	Leu	Glu	Asn	Ile	Gln	Val	Leu	Tyr	Ser
465					470					475					480
His	Glu	Lys	Val	Lys	Met	Glu	Gly	Thr	Ile	Ser	Gln	Gln	Thr	Lys	Leu
				485					490					495	
Ile	Asp	Phe	Leu	Gln	Ala	Lys	Met	Asp	Gln	Pro	Ala	Lys	Lys	Lys	Lys
			500					505					510		
Val	Pro	Leu	Gln	Tyr	Asn	Glu	Leu	Lys	Leu	Ala	Leu	Glu	Lys	Glu	Lys

515					520					525						
Ala	Arg	Cys	Ala	Glu	Leu	Glu	Glu	Ala	Leu	Gln	Lys	Thr	Arg	Ile	Glu	
530					535					540						
Leu	Arg	Ser	Ala	Arg	Glu	Glu	Ala	Ala	His	Arg	Lys	Ala	Thr	Asp	His	
545					550					555					560	
Pro	His	Pro	Ser	Thr	Pro	Ala	Thr	Ala	Arg	Gln	Gln	Ile	Ala	Met	Ser	
565					570					575						
Ala	Ile	Val	Arg	Ser	Pro	Glu	His	Gln	Pro	Ser	Ala	Met	Ser	Leu	Leu	
580					585					590						
Ala	Pro	Pro	Ser	Ser	Arg	Arg	Lys	Glu	Ser	Ser	Thr	Pro	Glu	Glu	Phe	
595					600					605						
Ser	Arg	Arg	Leu	Lys	Glu	Arg	Met	His	His	Asn	Ile	Pro	His	Arg	Phe	
610					615					620						
Asn	Val	Gly	Leu	Asn	Met	Arg	Ala	Thr	Lys	Cys	Ala	Val	Cys	Leu	Asp	
625					630					635					640	
Thr	Val	His	Phe	Gly	Arg	Gln	Ala	Ser	Lys	Cys	Leu	Glu	Cys	Gln	Val	
645					650					655						
Met	Cys	His	Pro	Lys	Cys	Ser	Thr	Cys	Leu	Pro	Ala	Thr	Cys	Gly	Leu	
660					665					670						
Pro	Ala	Glu	Tyr	Ala	Thr	His	Phe	Thr	Glu	Ala	Phe	Cys	Arg	Asp	Lys	
675					680					685						
Met	Asn	Ser	Pro	Gly	Leu	Gln	Thr	Lys	Glu	Pro	Ser	Ser	Ser	Leu	His	
690					695					700						
Leu	Glu	Gly	Trp	Met	Lys	Val	Pro	Arg	Asn	Asn	Lys	Arg	Gly	Gln	Gln	
705					710					715					720	
Gly	Trp	Asp	Arg	Lys	Tyr	Ile	Val	Leu	Glu	Gly	Ser	Lys	Val	Leu	Ile	
725					730					735						
Tyr	Asp	Asn	Glu	Ala	Arg	Glu	Ala	Gly	Gln	Arg	Pro	Val	Glu	Glu	Phe	
740					745					750						
Glu	Leu	Cys	Leu	Pro	Asp	Gly	Asp	Val	Ser	Ile	His	Gly	Ala	Val	Gly	
755					760					765						
Ala	Ser	Glu	Leu	Ala	Asn	Thr	Ala	Lys	Ala	Asp	Val	Pro	Tyr	Ile	Leu	
770					775					780						
Lys	Met	Glu	Ser	His	Pro	His	Thr	Thr	Cys	Trp	Pro	Gly	Arg	Thr	Leu	
785					790					795					800	
Tyr	Leu	Leu	Ala	Pro	Ser	Phe	Pro	Asp	Lys	Gln	Arg	Trp	Val	Thr	Ala	
805					810					815						
Leu	Glu	Ser	Val	Val	Ala	Gly	Gly	Arg	Val	Ser	Arg	Glu	Lys	Ala	Glu	

820					825					830						
Ala	Asp	Ala	Lys	Leu	Leu	Gly	Asn	Ser	Leu	Leu	Lys	Leu	Glu	Gly	Asp	
835					840					845						
Asp	Arg	Leu	Asp	Met	Asn	Cys	Thr	Leu	Pro	Phe	Ser	Asp	Gln	Val	Val	
850					855					860						
Leu	Val	Gly	Thr	Glu	Glu	Gly	Leu	Tyr	Ala	Leu	Asn	Val	Leu	Lys	Asn	
865					870					875					880	
Ser	Leu	Thr	His	Val	Pro	Gly	Ile	Gly	Ala	Val	Phe	Gln	Ile	Tyr	Ile	
885					890					895						
Ile	Lys	Asp	Leu	Glu	Lys	Leu	Leu	Met	Ile	Ala	Gly	Glu	Glu	Arg	Ala	
900					905					910						
Leu	Cys	Leu	Val	Asp	Val	Lys	Lys	Val	Lys	Gln	Ser	Leu	Ala	Gln	Ser	
915					920					925						
His	Leu	Pro	Ala	Gln	Pro	Asp	Ile	Ser	Pro	Asn	Ile	Phe	Glu	Ala	Val	
930					935					940						
Lys	Gly	Cys	His	Leu	Phe	Gly	Ala	Gly	Lys	Ile	Glu	Asn	Gly	Leu	Cys	
945					950					955					960	
Ile	Cys	Ala	Ala	Met	Pro	Ser	Lys	Val	Val	Ile	Leu	Arg	Tyr	Asn	Glu	
965					970					975						
Asn	Leu	Ser	Lys	Tyr	Cys	Ile	Arg	Lys	Glu	Ile	Glu	Thr	Ser	Glu	Pro	
980					985					990						
Cys	Ser	Cys	Ile	His	Phe	Thr	Asn	Tyr	Ser	Ile	Leu	Ile	Gly	Thr	Asn	
995					1000					1005						
Lys	Phe	Tyr	Glu	Ile	Asp	Met	Lys	Gln	Tyr	Thr	Leu	Glu	Glu	Phe	Leu	
1010					1015					1020						
Asp	Lys	Asn	Asp	His	Ser	Leu	Ala	Pro	Ala	Val	Phe	Ala	Ala	Ser	Ser	
1025					1030					1035					1040	
Asn	Ser	Phe	Pro	Val	Ser	Ile	Val	Gln	Val	Asn	Ser	Ala	Gly	Gln	Arg	
1045					1050					1055						
Glu	Glu	Tyr	Leu	Leu	Cys	Phe	His	Glu	Phe	Gly	Val	Phe	Val	Asp	Ser	
1060					1065					1070						
Tyr	Gly	Arg	Arg	Ser	Arg	Thr	Asp	Asp	Leu	Lys	Trp	Ser	Arg	Leu	Pro	
1075					1080					1085						
Leu	Ala	Phe	Ala	Tyr	Arg	Glu	Pro	Tyr	Leu	Phe	Val	Thr	His	Phe	Asn	
1090					1095					1100						
Ser	Leu	Glu	Val	Ile	Glu	Ile	Gln	Ala	Arg	Ser	Ser	Ala	Gly	Thr	Pro	
1105					1110					1115					1120	
Ala	Arg	Ala	Tyr	Leu	Asp	Ile	Pro	Asn	Pro	Arg	Tyr	Leu	Gly	Pro	Ala	

1125	1130	1135
Ile Ser Ser Gly Ala Ile Tyr Leu Ala Ser Ser Tyr Gln Asp Lys Leu		
1140	1145	1150
Arg Val Ile Cys Cys Lys Gly Asn Leu Val Lys Glu Ser Gly Thr Glu		
1155	1160	1165
His His Arg Gly Pro Ser Thr Ser Arg Ser Ser Pro Asn Lys Arg Gly		
1170	1175	1180
Pro Pro Thr Tyr Asn Glu His Ile Thr Lys Arg Val Ala Ser Ser Pro		
1185	1190	1200
Ala Pro Pro Glu Gly Pro Ser His Pro Arg Glu Pro Ser Thr Pro His		
1205	1210	1215
Arg Tyr Arg Glu Gly Arg Thr Glu Leu Arg Arg Asp Lys Ser Pro Gly		
1220	1225	1230
Arg Pro Leu Glu Arg Glu Lys Ser Pro Gly Arg Met Leu Ser Thr Arg		
1235	1240	1245
Arg Glu Arg Ser Pro Gly Arg Leu Phe Glu Asp Ser Ser Arg Gly Arg		
1250	1255	1260
Leu Pro Ala Gly Ala Val Arg Thr Pro Leu Ser Gln Val Asn Lys Val		
1265	1270	1275
1280		
Trp Asp Gln Ser Ser Val		
1285		

<210> 39
 <211> 940
 <212> PRT
 <213> Homo sapiens

<400> 39
Gln Ser Arg Ala Arg Ala Asp Gln Arg Ile Thr Glu Ser Arg Gln Val
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20 25 30
Gln Ala Leu Lys Glu Gln Lys Leu Lys Ala Glu Ser Leu Ser Asp Lys
35 40 45
Leu Asn Asp Leu Glu Lys Lys His Ala Met Leu Glu Met Asn Ala Arg
50 55 60
Ser Leu Gln Gln Lys Leu Glu Thr Glu Arg Glu Leu Lys Gln Arg Leu
65 70 75 80
Leu Glu Glu Gln Ala Lys Leu Gln Gln Gln Met Asp Leu Gln Lys Asn
85 90 95

His Ile Phe Arg Leu Thr Gln Gly Leu Gln Glu Ala Leu Asp Arg Ala
 100 105 110
 Asp Leu Leu Lys Thr Glu Arg Ser Asp Leu Glu Tyr Gln Leu Glu Asn
 115 120 125
 Ile Gln Val Leu Tyr Ser His Glu Lys Val Lys Met Glu Gly Thr Ile
 130 135 140
 Ser Gln Gln Thr Lys Leu Ile Asp Phe Leu Gln Ala Lys Met Asp Gln
 145 150 155 160
 Pro Ala Lys Lys Lys Lys Val Pro Leu Gln Tyr Asn Glu Leu Lys Leu
 165 170 175
 Ala Leu Glu Lys Glu Lys Ala Arg Cys Ala Glu Leu Glu Glu Ala Leu
 180 185 190
 Gln Lys Thr Arg Ile Glu Leu Arg Ser Ala Arg Glu Glu Ala Ala His
 195 200 205
 Arg Lys Ala Thr Asp His Pro His Pro Ser Thr Pro Ala Thr Ala Arg
 210 215 220
 Gln Gln Ile Ala Met Ser Ala Ile Val Arg Ser Pro Glu His Gln Pro
 225 230 235 240
 Ser Ala Met Ser Leu Leu Ala Pro Pro Ser Ser Arg Arg Lys Glu Ser
 245 250 255
 Ser Thr Pro Glu Glu Phe Ser Arg Arg Leu Lys Glu Arg Met His His
 260 265 270
 Asn Ile Pro His Arg Phe Asn Val Gly Leu Asn Met Arg Ala Thr Lys
 275 280 285
 Cys Ala Val Cys Leu Asp Thr Val His Phe Gly Arg Gln Ala Ser Lys
 290 295 300
 Cys Leu Glu Cys Gln Val Met Cys His Pro Lys Cys Ser Thr Cys Leu
 305 310 315 320
 Pro Ala Thr Cys Gly Leu Pro Ala Glu Tyr Ala Thr His Phe Thr Glu
 325 330 335
 Ala Phe Cys Arg Asp Lys Met Asn Ser Pro Gly Leu Gln Thr Lys Glu
 340 345 350
 Pro Ser Ser Ser Leu His Leu Glu Gly Trp Met Lys Val Pro Arg Asn
 355 360 365
 Asn Lys Arg Gly Gln Gln Gly Trp Asp Arg Lys Tyr Ile Val Leu Glu
 370 375 380
 Gly Ser Lys Val Leu Ile Tyr Asp Asn Glu Ala Arg Glu Ala Gly Gln
 385 390 395 400

Arg Pro Val Glu Glu Phe Glu Leu Cys Leu Pro Asp Gly Asp Val Ser
 405 410 415
 Ile His Gly Ala Val Gly Ala Ser Glu Leu Ala Asn Thr Ala Lys Ala
 420 425 430
 Asp Val Pro Tyr Ile Leu Lys Met Glu Ser His Pro His Thr Thr Cys
 435 440 445
 Trp Pro Gly Arg Thr Leu Tyr Leu Leu Ala Pro Ser Phe Pro Asp Lys
 450 455 460
 Gln Arg Trp Val Thr Ala Leu Glu Ser Val Val Ala Gly Gly Arg Val
 465 470 475 480
 Ser Arg Glu Lys Ala Glu Ala Asp Ala Lys Leu Leu Gly Asn Ser Leu
 485 490 495
 Leu Lys Leu Glu Gly Asp Asp Arg Leu Asp Met Asn Cys Thr Leu Pro
 500 505 510
 Phe Ser Asp Gln Val Val Leu Val Gly Thr Glu Glu Gly Leu Tyr Ala
 515 520 525
 Leu Asn Val Leu Lys Asn Ser Leu Thr His Val Pro Gly Ile Gly Ala
 530 535 540
 Val Phe Gln Ile Tyr Ile Ile Lys Asp Leu Glu Lys Leu Leu Met Ile
 545 550 555 560
 Ala Gly Glu Glu Arg Ala Leu Cys Leu Val Asp Val Lys Lys Val Lys
 565 570 575
 Gln Ser Leu Ala Gln Ser His Leu Pro Ala Gln Pro Asp Ile Ser Pro
 580 585 590
 Asn Ile Phe Glu Ala Val Lys Gly Cys His Leu Phe Gly Ala Gly Lys
 595 600 605
 Ile Glu Asn Gly Leu Cys Ile Cys Ala Ala Met Pro Ser Lys Val Val
 610 615 620
 Ile Leu Arg Tyr Asn Glu Asn Leu Ser Lys Tyr Cys Ile Arg Lys Glu
 625 630 635 640
 Ile Glu Thr Ser Glu Pro Cys Ser Cys Ile His Phe Thr Asn Tyr Ser
 645 650 655
 Ile Leu Ile Gly Thr Asn Lys Phe Tyr Glu Ile Asp Met Lys Gln Tyr
 660 665 670
 Thr Leu Glu Glu Phe Leu Asp Lys Asn Asp His Ser Leu Ala Pro Ala
 675 680 685
 Val Phe Ala Ala Ser Ser Asn Ser Phe Pro Val Ser Ile Val Gln Val
 690 695 700

Asn Ser Ala Gly Gln Arg Glu Glu Tyr Leu Leu Cys Phe His Glu Phe
705 710 715 720

Gly Val Phe Val Asp Ser Tyr Gly Arg Arg Ser Arg Thr Asp Asp Leu
725 730 735

Lys Trp Ser Arg Leu Pro Leu Ala Phe Ala Tyr Arg Glu Pro Tyr Leu
740 745 750

Phe Val Thr His Phe Asn Ser Leu Glu Val Ile Glu Ile Gln Ala Arg
755 760 765

Ser Ser Ala Gly Thr Pro Ala Arg Ala Tyr Leu Asp Ile Pro Asn Pro
770 775 780

Arg Tyr Leu Gly Pro Ala Ile Ser Ser Gly Ala Ile Tyr Leu Ala Ser
785 790 795 800

Ser Tyr Gln Asp Lys Leu Arg Val Ile Cys Cys Lys Gly Asn Leu Val
805 810 815

Lys Glu Ser Gly Thr Glu His His Arg Gly Pro Ser Thr Ser Arg Ser
820 825 830

Ser Pro Asn Lys Arg Gly Pro Pro Thr Tyr Asn Glu His Ile Thr Lys
835 840 845

Arg Val Ala Ser Ser Pro Ala Pro Pro Glu Gly Pro Ser His Pro Arg
850 855 860

Glu Pro Ser Thr Pro His Arg Tyr Arg Glu Gly Arg Thr Glu Leu Arg
865 870 875 880

Arg Asp Lys Ser Pro Gly Arg Pro Leu Glu Arg Glu Lys Ser Pro Gly
885 890 895

Arg Met Leu Ser Thr Arg Arg Glu Arg Ser Pro Gly Arg Leu Phe Glu
900 905 910

Asp Ser Ser Arg Gly Arg Leu Pro Ala Gly Ala Val Arg Thr Pro Leu
915 920 925

Ser Gln Val Asn Lys Val Trp Asp Gln Ser Ser Val
930 935 940

<210> 40

<211> 1641

<212> PRT

<213> Mus musculus

<400> 40

Pro Phe Val Pro Thr Leu Lys Ser Asp Asp Asp Thr Ser Asn Phe Asp
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Glu Pro Glu Lys Asn Ser Trp Val Ser Ser Ser Val Cys Gln Leu Ser
20 25 30

Pro Ser Gly Phe Ser Gly Glu Glu Leu Pro Phe Val Gly Phe Ser Tyr
 35 40 45
 Ser Lys Ala Leu Gly Tyr Leu Gly Arg Ser Glu Ser Val Val Ser Ser
 50 55 60
 Leu Asp Ser Pro Ala Lys Val Ser Ser Met Glu Lys Lys Leu Leu Ile
 65 70 75 80
 Lys Ser Lys Glu Leu Gln Asp Ser Gln Asp Lys Cys His Lys Met Glu
 85 90 95
 Gln Glu Met Thr Arg Leu His Arg Arg Val Ser Glu Val Glu Ala Val
 100 105 110
 Leu Ser Gln Lys Glu Val Glu Leu Lys Ala Ser Glu Thr Gln Arg Ser
 115 120 125
 Leu Leu Glu Gln Asp Leu Ala Thr Tyr Ile Thr Glu Cys Ser Ser Leu
 130 135 140
 Lys Arg Ser Leu Glu Gln Ala Arg Met Glu Val Ser Gln Glu Asp Asp
 145 150 155 160
 Lys Ala Leu Gln Leu Leu His Asp Ile Arg Glu Gln Ser Arg Lys Leu
 165 170 175
 Gln Glu Ile Lys Glu Gln Glu Tyr Gln Ala Gln Val Glu Glu Met Arg
 180 185 190
 Leu Met Met Asn Gln Leu Glu Glu Asp Leu Val Ser Ala Arg Arg Arg
 195 200 205
 Ser Asp Leu Tyr Glu Ser Glu Leu Arg Glu Ser Arg Leu Ala Ala Glu
 210 215 220
 Glu Phe Lys Arg Lys Ala Asn Glu Cys Gln His Lys Leu Met Lys Ala
 225 230 235 240
 Lys Asp Gln Gly Lys Pro Glu Val Gly Glu Tyr Ser Lys Leu Glu Lys
 245 250 255
 Ile Asn Ala Glu Gln Gln Leu Lys Ile Gln Glu Leu Gln Glu Lys Leu
 260 265 270
 Glu Lys Ala Val Lys Ala Ser Thr Glu Ala Thr Glu Leu Leu Gln Asn
 275 280 285
 Ile Arg Gln Ala Lys Glu Arg Ala Glu Arg Glu Leu Glu Lys Leu His
 290 295 300
 Asn Arg Glu Asp Ser Ser Glu Gly Ile Lys Lys Lys Leu Val Glu Ala
 305 310 315 320
 Glu Glu Leu Glu Glu Lys His Arg Glu Ala Gln Val Ser Ala Gln His
 325 330 335

Leu Glu Val His Leu Lys Gln Lys Glu Gln His Tyr Glu Glu Lys Ile
 340 345 350
 Lys Val Leu Asp Asn Gln Ile Lys Lys Asp Leu Ala Asp Lys Glu Ser
 355 360 365
 Leu Glu Asn Met Met Gln Arg His Glu Glu Glu Ala His Glu Lys Gly
 370 375 380
 Lys Ile Leu Ser Glu Gln Lys Ala Met Ile Asn Ala Met Asp Ser Lys
 385 390 395 400
 Ile Arg Ser Leu Glu Gln Arg Ile Val Glu Leu Ser Glu Ala Asn Lys
 405 410 415
 Leu Ala Ala Asn Ser Ser Leu Phe Thr Gln Arg Asn Met Lys Ala Gln
 420 425 430
 Glu Glu Met Ile Ser Glu Leu Arg Gln Gln Lys Phe Tyr Leu Glu Thr
 435 440 445
 Gln Ala Gly Lys Leu Glu Ala Gln Asn Arg Lys Leu Glu Glu Gln Leu
 450 455 460
 Glu Lys Ile Ser His Gln Asp His Ser Asp Lys Ser Arg Leu Leu Glu
 465 470 475 480
 Leu Glu Thr Arg Leu Arg Glu Val Ser Leu Glu His Glu Glu Gln Lys
 485 490 495
 Leu Glu Leu Lys Arg Gln Leu Thr Glu Leu Gln Leu Ser Leu Gln Glu
 500 505 510
 Arg Glu Ser Gln Leu Thr Ala Leu Gln Ala Ala Arg Ala Ala Leu Glu
 515 520 525
 Ser Gln Leu Arg Gln Ala Lys Thr Glu Leu Glu Glu Thr Thr Ala Glu
 530 535 540
 Ala Glu Glu Glu Ile Gln Ala Leu Thr Ala His Arg Asp Glu Ile Gln
 545 550 555 560
 Arg Lys Phe Asp Ala Leu Arg Asn Ser Cys Thr Val Ile Thr Asp Leu
 565 570 575
 Glu Glu Gln Leu Asn Gln Leu Thr Glu Asp Asn Ala Glu Leu Asn Asn
 580 585 590
 Gln Asn Phe Tyr Leu Ser Lys Gln Leu Asp Glu Ala Ser Gly Ala Asn
 595 600 605
 Asp Glu Ile Val Gln Leu Arg Ser Glu Val Asp His Leu Arg Arg Glu
 610 615 620
 Ile Thr Glu Arg Glu Met Gln Leu Thr Ser Gln Lys Gln Thr Met Glu
 625 630 635 640

Ala Leu Lys Thr Thr Cys Thr Met Leu Glu Glu Gln Val Leu Asp Leu
 645 650 655
 Glu Ala Leu Asn Asp Glu Leu Leu Glu Lys Glu Arg Gln Trp Glu Ala
 660 665 670
 Trp Arg Ser Val Leu Gly Asp Glu Lys Ser Gln Phe Glu Cys Arg Val
 675 680 685
 Arg Glu Leu Gln Arg Met Leu Asp Thr Glu Lys Gln Ser Arg Ala Arg
 690 695 700
 Ala Asp Gln Arg Ile Thr Glu Ser Arg Gln Val Val Glu Leu Ala Val
 705 710 715 720
 Lys Glu His Lys Ala Glu Ile Leu Ala Leu Gln Gln Ala Leu Lys Glu
 725 730 735
 Gln Lys Leu Lys Ala Glu Ser Leu Ser Asp Lys Leu Asn Asp Leu Glu
 740 745 750
 Lys Lys His Ala Met Leu Glu Met Asn Ala Arg Ser Leu Gln Gln Lys
 755 760 765
 Leu Glu Thr Glu Arg Glu Leu Lys Gln Arg Leu Leu Glu Glu Gln Ala
 770 775 780
 Lys Leu Gln Gln Gln Met Asp Leu Gln Lys Asn His Ile Phe Arg Leu
 785 790 795 800
 Thr Gln Gly Leu Gln Glu Ala Leu Asp Arg Ala Asp Leu Leu Lys Thr
 805 810 815
 Glu Arg Ser Asp Leu Glu Tyr Gln Leu Glu Asn Ile Gln Val Leu Tyr
 820 825 830
 Ser His Glu Lys Val Lys Met Glu Gly Thr Ile Ser Gln Gln Thr Lys
 835 840 845
 Leu Ile Asp Phe Leu Gln Ala Lys Met Asp Gln Pro Ala Lys Lys Lys
 850 855 860
 Lys Val Pro Leu Gln Tyr Asn Glu Leu Lys Leu Ala Leu Glu Lys Glu
 865 870 875 880
 Lys Ala Arg Cys Ala Glu Leu Glu Glu Ala Leu Gln Lys Thr Arg Ile
 885 890 895
 Glu Leu Arg Ser Ala Arg Glu Glu Ala Ala His Arg Lys Ala Thr Asp
 900 905 910
 His Pro His Pro Ser Thr Pro Ala Thr Ala Arg Gln Gln Ile Ala Met
 915 920 925
 Ser Ala Ile Val Arg Ser Pro Glu His Gln Pro Ser Ala Met Ser Leu
 930 935 940

Leu Ala Pro Pro Ser Ser Arg Arg Lys Glu Ser Ser Thr Pro Glu Glu
 945 950 955 960
 Phe Ser Arg Arg Leu Lys Glu Arg Met His His Asn Ile Pro His Arg
 965 970 975
 Phe Asn Val Gly Leu Asn Met Arg Ala Thr Lys Cys Ala Val Cys Leu
 980 985 990
 Asp Thr Val His Phe Gly Arg Gln Ala Ser Lys Cys Leu Glu Cys Gln
 995 1000 1005
 Val Met Cys His Pro Lys Cys Ser Thr Cys Leu Pro Ala Thr Cys Gly
 1010 1015 1020
 Leu Pro Ala Glu Tyr Ala Thr His Phe Thr Glu Ala Phe Cys Arg Asp
 1025 1030 1035 1040
 Lys Met Asn Ser Pro Gly Leu Gln Ser Lys Glu Pro Gly Ser Ser Leu
 1045 1050 1055
 His Leu Glu Gly Trp Met Lys Val Pro Arg Asn Asn Lys Arg Gly Gln
 1060 1065 1070
 Gln Gly Trp Asp Arg Lys Tyr Ile Val Leu Glu Gly Ser Lys Val Leu
 1075 1080 1085
 Ile Tyr Asp Asn Glu Ala Arg Glu Ala Gly Gln Arg Pro Val Glu Glu
 1090 1095 1100
 Phe Glu Leu Cys Leu Pro Asp Gly Asp Val Ser Ile His Gly Ala Val
 1105 1110 1115 1120
 Gly Ala Ser Glu Leu Ala Asn Thr Ala Lys Ala Asp Val Pro Tyr Ile
 1125 1130 1135
 Leu Lys Met Glu Ser His Pro His Thr Thr Cys Trp Pro Gly Arg Thr
 1140 1145 1150
 Leu Tyr Leu Leu Ala Pro Ser Phe Pro Asp Lys Gln Arg Trp Val Thr
 1155 1160 1165
 Ala Leu Glu Ser Val Val Ala Gly Gly Arg Val Ser Arg Glu Lys Ala
 1170 1175 1180
 Glu Ala Asp Ala Lys Leu Leu Gly Asn Ser Leu Leu Lys Leu Glu Gly
 1185 1190 1195 1200
 Asp Asp Arg Leu Asp Met Asn Cys Thr Leu Pro Phe Ser Asp Gln Val
 1205 1210 1215
 Val Leu Val Gly Thr Glu Glu Gly Leu Tyr Ala Leu Asn Val Leu Lys
 1220 1225 1230
 Asn Ser Leu Thr His Ile Pro Gly Ile Gly Ala Val Phe Gln Ile Tyr
 1235 1240 1245

Ile Ile Lys Asp Leu Glu Lys Leu Leu Met Ile Ala Gly Glu Glu Arg
 1250 1255 1260
 Ala Leu Cys Leu Val Asp Val Lys Lys Val Lys Gln Ser Leu Ala Gln
 1265 1270 1275 1280
 Ser His Leu Pro Ala Gln Pro Asp Val Ser Pro Asn Ile Phe Glu Ala
 1285 1290 1295
 Val Lys Gly Cys His Leu Phe Ala Ala Gly Lys Ile Glu Asn Ser Leu
 1300 1305 1310
 Cys Ile Cys Ala Ala Met Pro Ser Lys Val Val Ile Leu Arg Tyr Asn
 1315 1320 1325
 Asp Asn Leu Ser Lys Tyr Cys Ile Arg Lys Glu Ile Glu Thr Ser Glu
 1330 1335 1340
 Pro Cys Ser Cys Ile His Phe Thr Asn Tyr Ser Ile Leu Ile Gly Thr
 1345 1350 1355 1360
 Asn Lys Phe Tyr Glu Ile Asp Met Lys Gln Tyr Thr Leu Asp Glu Phe
 1365 1370 1375
 Leu Asp Lys Asn Asp His Ser Leu Ala Pro Ala Val Phe Ala Ser Ser
 1380 1385 1390
 Ser Asn Ser Phe Pro Val Ser Ile Val Gln Ala Asn Ser Ala Gly Gln
 1395 1400 1405
 Arg Glu Glu Tyr Leu Leu Cys Phe His Glu Phe Gly Val Phe Val Asp
 1410 1415 1420
 Ser Tyr Gly Arg Arg Ser Arg Thr Asp Asp Leu Lys Trp Ser Arg Leu
 1425 1430 1435 1440
 Pro Leu Ala Phe Ala Tyr Arg Glu Pro Tyr Leu Phe Val Thr His Phe
 1445 1450 1455
 Asn Ser Leu Glu Val Ile Glu Ile Gln Ala Arg Ser Ser Leu Gly Ser
 1460 1465 1470
 Pro Ala Arg Ala Tyr Leu Glu Ile Pro Asn Pro Arg Tyr Leu Gly Pro
 1475 1480 1485
 Ala Ile Ser Ser Gly Ala Ile Tyr Leu Ala Ser Ser Tyr Gln Asp Lys
 1490 1495 1500
 Leu Arg Val Ile Cys Cys Lys Gly Asn Leu Val Lys Glu Ser Gly Thr
 1505 1510 1515 1520
 Glu Gln His Arg Val Pro Ser Thr Ser Arg Ser Ser Pro Asn Lys Arg
 1525 1530 1535
 Gly Pro Pro Thr Tyr Asn Glu His Ile Thr Lys Arg Val Ala Ser Ser
 1540 1545 1550

Pro Ala Pro Pro Glu Gly Pro Ser His Pro Arg Glu Pro Ser Thr Pro
1555 1560 1565

His Arg Tyr Arg Asp Arg Glu Gly Arg Thr Glu Leu Arg Arg Asp Lys
1570 1575 1580

Ser Pro Gly Arg Pro Leu Glu Arg Glu Lys Ser Pro Gly Arg Met Leu
1585 1590 1595 1600

Ser Thr Arg Arg Glu Arg Ser Pro Gly Arg Leu Phe Glu Asp Ser Ser
1605 1610 1615

Arg Gly Arg Leu Pro Ala Gly Ala Val Arg Thr Pro Leu Ser Gln Val
1620 1625 1630

Asn Lys Val Trp Asp Gln Ser Ser Val
1635 1640

<210> 41
<211> 1597
<212> PRT
<213> Mus musculus

<400> 41
Met Leu Leu Gly Glu Glu Ala Met Met Glu Gln Glu Met Thr Arg Leu
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His Arg Arg Val Ser Glu Val Glu Ala Val Leu Ser Gln Lys Glu Val
20 25 30

Glu Leu Lys Ala Ser Glu Thr Gln Arg Ser Leu Leu Glu Gln Asp Leu
35 40 45

Ala Thr Tyr Ile Thr Glu Cys Ser Ser Leu Lys Arg Ser Leu Glu Gln
50 55 60

Ala Arg Met Glu Val Ser Gln Glu Asp Asp Lys Ala Leu Gln Leu Leu
65 70 75 80

His Asp Ile Arg Glu Gln Ser Arg Lys Leu Gln Glu Ile Lys Glu Gln
85 90 95

Glu Tyr Gln Ala Gln Val Glu Glu Met Arg Leu Met Met Asn Gln Leu
100 105 110

Glu Glu Asp Leu Val Ser Ala Arg Arg Arg Ser Asp Leu Tyr Glu Ser
115 120 125

Glu Leu Arg Glu Ser Arg Leu Ala Ala Glu Glu Phe Lys Arg Lys Ala
130 135 140

Asn Glu Cys Gln His Lys Leu Met Lys Ala Lys Asp Gln Gly Lys Pro
145 150 155 160

Glu Val Gly Glu Tyr Ser Lys Leu Glu Lys Ile Asn Ala Glu Gln Gln

165					170					175					
Leu	Lys	Ile	Gln	Glu	Leu	Gln	Glu	Lys	Leu	Glu	Lys	Ala	Val	Lys	Ala
			180					185					190		
Ser	Thr	Glu	Ala	Thr	Glu	Leu	Leu	Gln	Asn	Ile	Arg	Gln	Ala	Lys	Glu
		195					200					205			
Arg	Ala	Glu	Arg	Glu	Leu	Glu	Lys	Leu	His	Asn	Arg	Glu	Asp	Ser	Ser
	210					215					220				
Glu	Gly	Ile	Lys	Lys	Lys	Leu	Val	Glu	Ala	Glu	Glu	Arg	Arg	His	Ser
225					230					235					240
Leu	Glu	Asn	Lys	Val	Lys	Arg	Leu	Glu	Thr	Met	Glu	Arg	Arg	Glu	Asn
			245						250					255	
Arg	Leu	Lys	Asp	Asp	Ile	Gln	Thr	Lys	Ser	Glu	Gln	Ile	Gln	Gln	Met
			260					265					270		
Ala	Asp	Lys	Ile	Leu	Glu	Leu	Glu	Glu	Lys	His	Arg	Glu	Ala	Gln	Val
	275						280					285			
Ser	Ala	Gln	His	Leu	Glu	Val	His	Leu	Lys	Gln	Lys	Glu	Gln	His	Tyr
	290					295					300				
Glu	Glu	Lys	Ile	Lys	Val	Leu	Asp	Asn	Gln	Ile	Lys	Lys	Asp	Leu	Ala
305					310					315					320
Asp	Lys	Glu	Ser	Leu	Glu	Asn	Met	Met	Gln	Arg	His	Glu	Glu	Glu	Ala
				325					330					335	
His	Glu	Lys	Gly	Lys	Ile	Leu	Ser	Glu	Gln	Lys	Ala	Met	Ile	Asn	Ala
			340					345					350		
Met	Asp	Ser	Lys	Ile	Arg	Ser	Leu	Glu	Gln	Arg	Ile	Val	Glu	Leu	Ser
	355						360					365			
Glu	Ala	Asn	Lys	Leu	Ala	Ala	Asn	Ser	Ser	Leu	Phe	Thr	Gln	Arg	Asn
	370					375					380				
Met	Lys	Ala	Gln	Glu	Glu	Met	Ile	Ser	Glu	Leu	Arg	Gln	Gln	Lys	Phe
385					390					395					400
Tyr	Leu	Glu	Thr	Gln	Ala	Gly	Lys	Leu	Glu	Ala	Gln	Asn	Arg	Lys	Leu
			405						410					415	
Glu	Glu	Gln	Leu	Glu	Lys	Ile	Ser	His	Gln	Asp	His	Ser	Asp	Lys	Ser
			420					425					430		
Arg	Leu	Leu	Glu	Leu	Glu	Thr	Arg	Leu	Arg	Glu	Val	Ser	Leu	Glu	His
	435						440					445			
Glu	Glu	Gln	Lys	Leu	Glu	Leu	Lys	Arg	Gln	Leu	Thr	Glu	Leu	Gln	Leu
	450					455					460				
Ser	Leu	Gln	Glu	Arg	Glu	Ser	Gln	Leu	Thr	Ala	Leu	Gln	Ala	Ala	Arg

465	470	475	480
Ala Ala Leu Glu Ser Gln Leu Arg Gln Ala Lys Thr Glu Leu Glu Glu	485	490	495
Thr Thr Ala Glu Ala Glu Glu Glu Ile Gln Ala Leu Thr Ala His Arg	500	505	510
Asp Glu Ile Gln Arg Lys Phe Asp Ala Leu Arg Asn Ser Cys Thr Val	515	520	525
Ile Thr Asp Leu Glu Glu Gln Leu Asn Gln Leu Thr Glu Asp Asn Ala	530	535	540
Glu Leu Asn Asn Gln Asn Phe Tyr Leu Ser Lys Gln Leu Asp Glu Ala	545	550	555
Ser Gly Ala Asn Asp Glu Ile Val Gln Leu Arg Ser Glu Val Asp His	565	570	575
Leu Arg Arg Glu Ile Thr Glu Arg Glu Met Gln Leu Thr Ser Gln Lys	580	585	590
Gln Thr Met Glu Ala Leu Lys Thr Thr Cys Thr Met Leu Glu Glu Gln	595	600	605
Val Leu Asp Leu Glu Ala Leu Asn Asp Glu Leu Leu Glu Lys Glu Arg	610	615	620
Gln Trp Glu Ala Trp Arg Ser Val Leu Gly Asp Glu Lys Ser Gln Phe	625	630	635
Glu Cys Arg Val Arg Glu Leu Gln Arg Met Leu Asp Thr Glu Lys Gln	645	650	655
Ser Arg Ala Arg Ala Asp Gln Arg Ile Thr Glu Ser Arg Gln Val Val	660	665	670
Glu Leu Ala Val Lys Glu His Lys Ala Glu Ile Leu Ala Leu Gln Gln	675	680	685
Ala Leu Lys Glu Gln Lys Leu Lys Ala Glu Ser Leu Ser Asp Lys Leu	690	695	700
Asn Asp Leu Glu Lys Lys His Ala Met Leu Glu Met Asn Ala Arg Ser	705	710	715
Leu Gln Gln Lys Leu Glu Thr Glu Arg Glu Leu Lys Gln Arg Leu Leu	725	730	735
Glu Glu Gln Ala Lys Leu Gln Gln Gln Met Asp Leu Gln Lys Asn His	740	745	750
Ile Phe Arg Leu Thr Gln Gly Leu Gln Glu Ala Leu Asp Arg Ala Asp	755	760	765
Leu Leu Lys Thr Glu Arg Ser Asp Leu Glu Tyr Gln Leu Glu Asn Ile			

770					775					780					
Gln	Val	Leu	Tyr	Ser	His	Glu	Lys	Val	Lys	Met	Glu	Gly	Thr	Ile	Ser
785					790					795					800
Gln	Gln	Thr	Lys	Leu	Ile	Asp	Phe	Leu	Gln	Ala	Lys	Met	Asp	Gln	Pro
			805						810					815	
Ala	Lys	Lys	Lys	Lys	Val	Pro	Leu	Gln	Tyr	Asn	Glu	Leu	Lys	Leu	Ala
			820					825					830		
Leu	Glu	Lys	Glu	Lys	Ala	Arg	Cys	Ala	Glu	Leu	Glu	Glu	Ala	Leu	Gln
		835					840					845			
Lys	Thr	Arg	Ile	Glu	Leu	Arg	Ser	Ala	Arg	Glu	Glu	Ala	Ala	His	Arg
	850					855					860				
Lys	Ala	Thr	Asp	His	Pro	His	Pro	Ser	Thr	Pro	Ala	Thr	Ala	Arg	Gln
865						870					875				880
Gln	Ile	Ala	Met	Ser	Ala	Ile	Val	Arg	Ser	Pro	Glu	His	Gln	Pro	Ser
			885						890					895	
Ala	Met	Ser	Leu	Leu	Ala	Pro	Pro	Ser	Ser	Arg	Arg	Lys	Glu	Ser	Ser
			900					905					910		
Thr	Pro	Glu	Glu	Phe	Ser	Arg	Arg	Leu	Lys	Glu	Arg	Met	His	His	Asn
		915					920					925			
Ile	Pro	His	Arg	Phe	Asn	Val	Gly	Leu	Asn	Met	Arg	Ala	Thr	Lys	Cys
	930					935					940				
Ala	Val	Cys	Leu	Asp	Thr	Val	His	Phe	Gly	Arg	Gln	Ala	Ser	Lys	Cys
945						950					955				960
Leu	Glu	Cys	Gln	Val	Met	Cys	His	Pro	Lys	Cys	Ser	Thr	Cys	Leu	Pro
			965						970					975	
Ala	Thr	Cys	Gly	Leu	Pro	Ala	Glu	Tyr	Ala	Thr	His	Phe	Thr	Glu	Ala
			980					985					990		
Phe	Cys	Arg	Asp	Lys	Met	Asn	Ser	Pro	Gly	Leu	Gln	Ser	Lys	Glu	Pro
	995					1000					1005				
Gly	Ser	Ser	Leu	His	Leu	Glu	Gly	Trp	Met	Lys	Val	Pro	Arg	Asn	Asn
	1010					1015					1020				
Lys	Arg	Gly	Gln	Gln	Gly	Trp	Asp	Arg	Lys	Tyr	Ile	Val	Leu	Glu	Gly
1025						1030					1035				1040
Ser	Lys	Val	Leu	Ile	Tyr	Asp	Asn	Glu	Ala	Arg	Glu	Ala	Gly	Gln	Arg
			1045					1050					1055		
Pro	Val	Glu	Glu	Phe	Glu	Leu	Cys	Leu	Pro	Asp	Gly	Asp	Val	Ser	Ile
		1060					1065					1070			
His	Gly	Ala	Val	Gly	Ala	Ser	Glu	Leu	Ala	Asn	Thr	Ala	Lys	Ala	Asp

1075	1080	1085
Val Pro Tyr Ile Leu Lys Met Glu Ser His Pro His Thr Thr Cys Trp 1090	1095	1100
Pro Gly Arg Thr Leu Tyr Leu Leu Ala Pro Ser Phe Pro Asp Lys Gln 1105	1110	1115 1120
Arg Trp Val Thr Ala Leu Glu Ser Val Val Ala Gly Gly Arg Val Ser 1125	1130	1135
Arg Glu Lys Ala Glu Ala Asp Ala Lys Leu Leu Gly Asn Ser Leu Leu 1140	1145	1150
Lys Leu Glu Gly Asp Asp Arg Leu Asp Met Asn Cys Thr Leu Pro Phe 1155	1160	1165
Ser Asp Gln Val Val Leu Val Gly Thr Glu Glu Gly Leu Tyr Ala Leu 1170	1175	1180
Asn Val Leu Lys Asn Ser Leu Thr His Ile Pro Gly Ile Gly Ala Val 1185	1190	1195 1200
Phe Gln Ile Tyr Ile Ile Lys Asp Leu Glu Lys Leu Leu Met Ile Ala 1205	1210	1215
Gly Glu Glu Arg Ala Leu Cys Leu Val Asp Val Lys Lys Val Lys Gln 1220	1225	1230
Ser Leu Ala Gln Ser His Leu Pro Ala Gln Pro Asp Val Ser Pro Asn 1235	1240	1245
Ile Phe Glu Ala Val Lys Gly Cys His Leu Phe Ala Ala Gly Lys Ile 1250	1255	1260
Glu Asn Ser Leu Cys Ile Cys Ala Ala Met Pro Ser Lys Val Val Ile 1265	1270	1275 1280
Leu Arg Tyr Asn Asp Asn Leu Ser Lys Tyr Cys Ile Arg Lys Glu Ile 1285	1290	1295
Glu Thr Ser Glu Pro Cys Ser Cys Ile His Phe Thr Asn Tyr Ser Ile 1300	1305	1310
Leu Ile Gly Thr Asn Lys Phe Tyr Glu Ile Asp Met Lys Gln Tyr Thr 1315	1320	1325
Leu Asp Glu Phe Leu Asp Lys Asn Asp His Ser Leu Ala Pro Ala Val 1330	1335	1340
Phe Ala Ser Ser Ser Asn Ser Phe Pro Val Ser Ile Val Gln Ala Asn 1345	1350	1355 1360
Ser Ala Gly Gln Arg Glu Glu Tyr Leu Leu Cys Phe His Glu Phe Gly 1365	1370	1375
Val Phe Val Asp Ser Tyr Gly Arg Arg Ser Arg Thr Asp Asp Leu Lys		

1380	1385	1390
Trp Ser Arg Leu Pro Leu Ala Phe Ala Tyr Arg Glu Pro Tyr Leu Phe 1395 1400 1405		
Val Thr His Phe Asn Ser Leu Glu Val Ile Glu Ile Gln Ala Arg Ser 1410 1415 1420		
Ser Leu Gly Ser Pro Ala Arg Ala Tyr Leu Glu Ile Pro Asn Pro Arg 1425 1430 1435 1440		
Tyr Leu Gly Pro Ala Ile Ser Ser Gly Ala Ile Tyr Leu Ala Ser Ser 1445 1450 1455		
Tyr Gln Asp Lys Leu Arg Val Ile Cys Cys Lys Gly Asn Leu Val Lys 1460 1465 1470		
Glu Ser Gly Thr Glu Gln His Arg Val Pro Ser Thr Ser Arg Ser Ser 1475 1480 1485		
Pro Asn Lys Arg Gly Pro Pro Thr Tyr Asn Glu His Ile Thr Lys Arg 1490 1495 1500		
Val Ala Ser Ser Pro Ala Pro Pro Glu Gly Pro Ser His Pro Arg Glu 1505 1510 1515 1520		
Pro Ser Thr Pro His Arg Tyr Arg Asp Arg Glu Gly Arg Thr Glu Leu 1525 1530 1535		
Arg Arg Asp Lys Ser Pro Gly Arg Pro Leu Glu Arg Glu Lys Ser Pro 1540 1545 1550		
Gly Arg Met Leu Ser Thr Arg Arg Glu Arg Ser Pro Gly Arg Leu Phe 1555 1560 1565		
Glu Asp Ser Ser Arg Gly Arg Leu Pro Ala Gly Ala Val Arg Thr Pro 1570 1575 1580		
Leu Ser Gln Val Asn Lys Val Trp Asp Gln Ser Ser Val 1585 1590 1595		

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 <211> 1871
 <212> PRT
 <213> Homo sapiens

<400> 42
 Met Pro Ser Val Cys Leu Leu Leu Leu Leu Phe Leu Ala Val Gly Gly
 1 5 10 15
 Ala Leu Gly Asn Arg Pro Phe Arg Ala Phe Val Val Thr Asp Thr Thr
 20 25 30
 Leu Thr His Leu Ala Val His Arg Val Thr Gly Glu Val Phe Val Gly
 35 40 45

Ala Val Asn Arg Val Phe Lys Leu Ala Pro Asn Leu Thr Glu Leu Arg
 50 55 60
 Ala His Val Thr Gly Pro Val Glu Asp Asn Ala Arg Cys Tyr Pro Pro
 65 70 75 80
 Pro Ser Met Arg Val Cys Ala His Arg Leu Ala Pro Val Asp Asn Ile
 85 90 95
 Asn Lys Leu Leu Leu Ile Asp Tyr Ala Ala Arg Arg Leu Val Ala Cys
 100 105 110
 Gly Ser Ile Trp Gln Gly Ile Cys Gln Phe Leu Arg Leu Asp Asp Leu
 115 120 125
 Phe Lys Leu Gly Glu Pro His His Arg Lys Glu His Tyr Leu Ser Gly
 130 135 140
 Ala Gln Glu Pro Asp Ser Met Ala Gly Val Ile Val Glu Gln Gly Gln
 145 150 155 160
 Gly Pro Ser Lys Leu Phe Val Gly Thr Ala Val Asp Gly Lys Ser Glu
 165 170 175
 Tyr Phe Pro Thr Leu Ser Ser Arg Lys Leu Ile Ser Asp Glu Asp Ser
 180 185 190
 Ala Asp Met Phe Ser Leu Val Tyr Gln Asp Glu Phe Val Ser Ser Gln
 195 200 205
 Ile Lys Ile Pro Ser Asp Thr Leu Ser Leu Tyr Pro Ala Phe Asp Ile
 210 215 220
 Tyr Tyr Ile Tyr Gly Phe Val Ser Ala Ser Phe Val Tyr Phe Leu Thr
 225 230 235 240
 Leu Gln Leu Asp Thr Gln Gln Thr Leu Leu Asp Thr Ala Gly Glu Lys
 245 250 255
 Phe Phe Thr Ser Lys Ile Val Arg Met Cys Ala Gly Asp Ser Glu Phe
 260 265 270
 Tyr Ser Tyr Val Glu Phe Pro Ile Gly Cys Ser Trp Arg Gly Val Glu
 275 280 285
 Tyr Arg Leu Val Gln Ser Ala His Leu Ala Lys Pro Gly Leu Leu Leu
 290 295 300
 Ala Gln Ala Leu Gly Val Pro Ala Asp Glu Asp Val Leu Phe Thr Ile
 305 310 315 320
 Phe Ser Gln Gly Gln Lys Asn Arg Ala Ser Pro Pro Arg Gln Thr Ile
 325 330 335
 Leu Cys Leu Phe Thr Leu Ser Asn Ile Asn Ala His Ile Arg Arg Arg
 340 345 350

Ile Gln Ser Cys Tyr Arg Gly Glu Gly Thr Leu Ala Leu Pro Trp Leu
 355 360 365
 Leu Asn Lys Glu Leu Pro Cys Ile Asn Thr Pro Met Gln Ile Asn Gly
 370 375 380
 Asn Phe Cys Gly Leu Val Leu Asn Gln Pro Leu Gly Gly Leu His Val
 385 390 395 400
 Ile Glu Gly Leu Pro Leu Leu Ala Asp Ser Thr Asp Gly Met Ala Ser
 405 410 415
 Val Ala Ala Tyr Thr Tyr Arg Gln His Ser Val Val Phe Ile Gly Thr
 420 425 430
 Arg Ser Gly Ser Leu Lys Lys Val Arg Val Asp Gly Phe Gln Asp Ala
 435 440 445
 His Leu Tyr Glu Thr Val Pro Val Val Asp Gly Ser Pro Ile Leu Arg
 450 455 460
 Asp Leu Leu Phe Ser Pro Asp His Arg His Ile Tyr Leu Leu Ser Glu
 465 470 475 480
 Lys Gln Val Ser Gln Leu Pro Val Glu Thr Cys Glu Gln Tyr Gln Ser
 485 490 495
 Cys Ala Ala Cys Leu Gly Ser Gly Asp Pro His Cys Gly Trp Cys Val
 500 505 510
 Leu Arg His Arg Cys Cys Arg Glu Gly Ala Cys Leu Gly Ala Ser Ala
 515 520 525
 Pro His Gly Phe Ala Glu Glu Leu Ser Lys Cys Val Gln Val Arg Val
 530 535 540
 Arg Pro Asn Asn Val Ser Val Thr Ser Pro Gly Val Gln Leu Thr Val
 545 550 555 560
 Thr Leu His Asn Val Pro Asp Leu Ser Ala Gly Val Ser Cys Ala Phe
 565 570 575
 Glu Ala Ala Ala Glu Asn Glu Ala Val Leu Leu Pro Ser Gly Glu Leu
 580 585 590
 Leu Cys Pro Ser Pro Ser Leu Gln Glu Leu Arg Ala Leu Thr Arg Gly
 595 600 605
 His Gly Ala Thr Arg Thr Val Arg Leu Gln Leu Leu Ser Lys Glu Thr
 610 615 620
 Gly Val Arg Phe Ala Gly Ala Asp Phe Val Phe Tyr Asn Cys Ser Val
 625 630 635 640
 Leu Gln Ser Cys Met Ser Cys Val Gly Ser Pro Tyr Pro Cys His Trp
 645 650 655

Cys Lys Tyr Arg His Thr Cys Thr Ser Arg Pro His Glu Cys Ser Phe
 660 665 670
 Gln Glu Gly Arg Val His Ser Pro Glu Gly Cys Pro Glu Ile Leu Pro
 675 680 685
 Ser Gly Asp Leu Leu Ile Pro Val Gly Val Met Gln Pro Leu Thr Leu
 690 695 700
 Arg Ala Lys Asn Leu Pro Gln Pro Gln Ser Gly Gln Lys Asn Tyr Glu
 705 710 715 720
 Cys Val Val Arg Val Gln Gly Arg Gln Gln Arg Val Pro Ala Val Arg
 725 730 735
 Phe Asn Ser Ser Ser Val Gln Cys Gln Asn Ala Ser Tyr Ser Tyr Glu
 740 745 750
 Gly Asp Glu His Gly Asp Thr Glu Leu Asp Phe Ser Val Val Trp Asp
 755 760 765
 Gly Asp Phe Pro Ile Asp Lys Pro Pro Ser Phe Arg Ala Leu Leu Tyr
 770 775 780
 Lys Cys Trp Ala Gln Arg Pro Ser Cys Gly Leu Cys Leu Lys Ala Asp
 785 790 795 800
 Pro Arg Phe Asn Cys Gly Trp Cys Ile Ser Glu His Arg Cys Gln Leu
 805 810 815
 Arg Thr His Cys Pro Ala Pro Lys Thr Asn Trp Met His Leu Ser Gln
 820 825 830
 Lys Gly Thr Arg Cys Ser His Pro Arg Ile Thr Gln Ile His Pro Leu
 835 840 845
 Val Gly Pro Lys Glu Gly Gly Thr Arg Val Thr Ile Val Gly Asp Asn
 850 855 860
 Leu Gly Leu Leu Ser Arg Glu Val Gly Leu Arg Val Ala Gly Val Arg
 865 870 875 880
 Cys Asn Ser Ile Pro Ala Glu Tyr Ile Ser Ala Glu Arg Ile Val Cys
 885 890 895
 Glu Met Glu Glu Ser Leu Val Pro Ser Pro Pro Pro Gly Pro Val Glu
 900 905 910
 Leu Cys Val Gly Asp Cys Ser Ala Asp Phe Arg Thr Gln Ser Glu Gln
 915 920 925
 Val Tyr Ser Phe Val Thr Pro Thr Phe Asp Gln Val Ser Pro Ser Arg
 930 935 940
 Gly Pro Ala Ser Gly Gly Thr Arg Leu Thr Ile Ser Gly Ser Ser Leu
 945 950 955 960

Asp Ala Gly Ser Arg Val Thr Val Thr Val Arg Asp Ser Glu Cys Gln
 965 970 975
 Phe Val Arg Arg Asp Ala Lys Ala Ile Val Cys Ile Ser Pro Leu Ser
 980 985 990
 Thr Leu Gly Pro Ser Gln Ala Pro Ile Thr Leu Ala Ile Asp Arg Ala
 995 1000 1005
 Asn Ile Ser Ser Pro Gly Leu Ile Tyr Thr Tyr Thr Gln Asp Pro Thr
 1010 1015 1020
 Val Thr Arg Leu Glu Pro Thr Trp Ser Ile Ile Asn Gly Ser Thr Ala
 1025 1030 1035 1040
 Ile Thr Val Ser Gly Thr His Leu Leu Thr Val Gln Glu Pro Arg Val
 1045 1050 1055
 Arg Ala Lys Tyr Arg Gly Ile Glu Thr Thr Asn Thr Cys Gln Val Ile
 1060 1065 1070
 Asn Asp Thr Ala Met Leu Cys Lys Ala Pro Gly Ile Phe Leu Gly Arg
 1075 1080 1085
 Pro Gln Pro Arg Ala Gln Gly Glu His Pro Asp Glu Phe Gly Phe Leu
 1090 1095 1100
 Leu Asp His Val Gln Thr Ala Arg Ser Leu Asn Arg Ser Ser Phe Thr
 1105 1110 1115 1120
 Tyr Tyr Pro Asp Pro Ser Phe Glu Pro Leu Gly Pro Ser Gly Val Leu
 1125 1130 1135
 Asp Val Lys Pro Gly Ser His Val Val Leu Lys Gly Lys Asn Leu Ile
 1140 1145 1150
 Pro Ala Ala Ala Gly Ser Ser Arg Leu Asn Tyr Thr Val Leu Ile Gly
 1155 1160 1165
 Gly Gln Pro Cys Ser Leu Thr Val Ser Asp Thr Gln Leu Leu Cys Asp
 1170 1175 1180
 Ser Pro Ser Gln Thr Gly Arg Gln Pro Val Met Val Leu Val Gly Gly
 1185 1190 1195 1200
 Leu Glu Phe Trp Leu Gly Thr Leu His Ile Ser Ala Glu Arg Ala Leu
 1205 1210 1215
 Thr Leu Pro Ala Met Met Gly Leu Ala Ala Gly Gly Gly Leu Leu Leu
 1220 1225 1230
 Leu Ala Ile Thr Ala Val Leu Val Ala Tyr Lys Arg Lys Thr Gln Asp
 1235 1240 1245
 Ala Asp Arg Thr Leu Lys Arg Leu Gln Leu Gln Met Asp Asn Leu Glu
 1250 1255 1260

Ser Arg Val Ala Leu Glu Cys Lys Glu Ala Phe Ala Glu Leu Gln Thr
 1265 1270 1275 1280
 Asp Ile Asn Glu Leu Thr Asn His Met Asp Glu Val Gln Ile Pro Phe
 1285 1290 1295
 Leu Asp Tyr Arg Thr Tyr Ala Val Arg Val Leu Phe Pro Gly Ile Glu
 1300 1305 1310
 Ala His Pro Val Leu Lys Glu Leu Asp Thr Pro Pro Asn Val Glu Lys
 1315 1320 1325
 Ala Leu Arg Leu Phe Gly Gln Leu Leu His Ser Arg Ala Phe Val Leu
 1330 1335 1340
 Thr Phe Ile His Thr Leu Glu Ala Gln Ser Ser Phe Ser Met Arg Asp
 1345 1350 1355 1360
 Arg Gly Thr Val Ala Ser Leu Thr Met Val Ala Leu Gln Ser Arg Leu
 1365 1370 1375
 Asp Tyr Ala Thr Gly Leu Leu Lys Gln Leu Leu Ala Asp Leu Ile Glu
 1380 1385 1390
 Lys Asn Leu Glu Ser Lys Asn His Pro Lys Leu Leu Leu Arg Arg Thr
 1395 1400 1405
 Glu Ser Val Ala Glu Lys Met Leu Thr Asn Trp Phe Thr Phe Leu Leu
 1410 1415 1420
 His Lys Phe Leu Lys Glu Cys Ala Gly Glu Pro Leu Phe Leu Leu Tyr
 1425 1430 1435 1440
 Cys Ala Ile Lys Gln Gln Met Glu Lys Gly Pro Ile Asp Ala Ile Thr
 1445 1450 1455
 Gly Glu Ala Arg Tyr Ser Leu Ser Glu Asp Lys Leu Ile Arg Gln Gln
 1460 1465 1470
 Ile Asp Tyr Lys Thr Leu Thr Leu His Cys Val Cys Pro Glu Asn Glu
 1475 1480 1485
 Gly Ser Ala Gln Val Pro Val Lys Val Leu Asn Cys Asp Ser Ile Thr
 1490 1495 1500
 Gln Ala Lys Asp Lys Leu Leu Asp Thr Val Tyr Lys Gly Ile Pro Tyr
 1505 1510 1515 1520
 Ser Gln Arg Pro Lys Ala Glu Asp Met Asp Leu Glu Trp Arg Gln Gly
 1525 1530 1535
 Arg Met Thr Arg Ile Ile Leu Gln Asp Glu Asp Val Thr Thr Lys Ile
 1540 1545 1550
 Glu Cys Asp Trp Lys Arg Leu Asn Ser Leu Ala His Tyr Gln Val Thr
 1555 1560 1565

Asp Gly Ser Leu Val Ala Leu Val Pro Lys Gln Val Ser Ala Tyr Asn
 1570 1575 1580

Met Ala Asn Ser Phe Thr Phe Thr Arg Ser Leu Ser Arg Tyr Glu Ser
 1585 1590 1595 1600

Leu Leu Arg Thr Ala Ser Ser Pro Asp Ser Leu Arg Ser Arg Ala Pro
 1605 1610 1615

Met Ile Thr Pro Asp Gln Glu Thr Gly Thr Lys Leu Trp His Leu Val
 1620 1625 1630

Lys Asn His Asp His Ala Asp His Arg Glu Gly Asp Arg Gly Ser Lys
 1635 1640 1645

Met Val Ser Glu Ile Tyr Leu Thr Arg Leu Leu Ala Thr Lys Gly Thr
 1650 1655 1660

Leu Gln Lys Phe Val Asp Asp Leu Phe Glu Thr Val Phe Ser Thr Ala
 1665 1670 1675 1680

His Arg Gly Ser Ala Leu Pro Leu Ala Ile Lys Tyr Met Phe Asp Phe
 1685 1690 1695

Leu Asp Glu Gln Ala Asp Gln Arg Gln Ile Ser Asp Pro Asp Val Arg
 1700 1705 1710

His Thr Trp Lys Ser Asn Cys Leu Pro Leu Arg Phe Trp Val Asn Val
 1715 1720 1725

Ile Lys Asn Pro Gln Phe Val Phe Asp Ile His Lys Asn Ser Ile Thr
 1730 1735 1740

Asp Ala Cys Leu Ser Val Val Ala Gln Thr Phe Met Asp Ser Cys Ser
 1745 1750 1755 1760

Thr Ser Glu His Arg Leu Gly Lys Asp Ser Pro Ser Asn Lys Leu Leu
 1765 1770 1775

Tyr Ala Lys Asp Ile Pro Asn Tyr Lys Ser Trp Val Glu Arg Tyr Tyr
 1780 1785 1790

Arg Asp Ile Ala Lys Met Ala Ser Ile Ser Asp Gln Asp Met Asp Ala
 1795 1800 1805

Tyr Leu Val Glu Gln Ser Arg Leu His Ala Ser Asp Phe Ser Val Leu
 1810 1815 1820

Ser Ala Leu Asn Glu Leu Tyr Phe Tyr Val Thr Lys Tyr Arg Gln Glu
 1825 1830 1835 1840

Ile Leu Thr Ala Leu Asp Arg Asp Ala Ser Cys Arg Lys His Lys Leu
 1845 1850 1855

Arg Gln Lys Leu Glu Gln Ile Ile Ser Leu Val Ser Ser Asp Ser
 1860 1865 1870

<400> 43

Ser Arg Arg Pro Gln Gln Pro Ala Ala Ala Glu Val Asp Arg Ala Gly
20 25 30

Thr Glu Gly Gln Thr Asp Val Ala Glu Leu Glu Ser Cys Glu Gly Gln
35 40 45

Pro Gly Lys Val Glu Gln Met Ser Thr His Arg Ser Arg Leu Leu Thr
50 55 60

Ala Ala Pro Leu Ser Met Glu Gln Arg Arg Pro Trp Pro Arg Ala Leu
65 70 75 80

Glu Val Asp Ser Arg Ser Val Val Leu Leu Ser Val Val Trp Val Leu
85 90 95

Leu Ala Pro Pro Ala Ala Gly Met Pro Gln Phe Ser Thr Phe His Ser
100 105 110

Glu Asn Arg Asp Trp Thr Phe Asn His Leu Thr Val His Gln Gly Thr
115 120 125

Gly Ala Val Tyr Val Gly Ala Ile Asn Arg Val Tyr Lys Leu Thr Gly
130 135 140

Asn Leu Thr Ile Gln Val Ala His Lys Thr Gly Pro Glu Glu Asp Asn
145 150 155 160

Lys Ser Cys Tyr Pro Pro Leu Ile Val Gln Pro Cys Ser Glu Val Leu
165 170 175

Thr Leu Thr Asn Asn Val Asn Lys Leu Leu Ile Ile Asp Tyr Ser Glu
180 185 190

Asn Arg Leu Leu Ala Cys Gly Ser Leu Tyr Gln Gly Val Cys Lys Leu
195 200 205

Leu Arg Leu Asp Asp Leu Phe Ile Leu Val Glu Pro Ser His Lys Lys
210 215 220

Glu His Tyr Leu Ser Ser Val Asn Lys Thr Gly Thr Met Tyr Gly Val
225 230 235 240

Ile Val Arg Ser Glu Gly Glu Asp Gly Lys Leu Phe Ile Gly Thr Ala
245 250 255

Val Asp Gly Lys Gln Asp Tyr Phe Pro Thr Leu Ser Ser Arg Lys Leu
260 265 270

Pro Arg Asp Pro Glu Ser Ser Ala Met Leu Asp Tyr Glu Leu His Ser
 275 280 285
 Asp Phe Val Ser Ser Leu Ile Lys Ile Pro Ser Asp Thr Leu Ala Leu
 290 295 300
 Val Ser His Phe Asp Ile Phe Tyr Ile Tyr Gly Phe Ala Ser Gly Gly
 305 310 315 320
 Phe Val Tyr Phe Leu Thr Val Gln Pro Glu Thr Pro Glu Gly Val Ala
 325 330 335
 Ile Asn Ser Ala Gly Asp Leu Phe Tyr Thr Ser Arg Ile Val Arg Leu
 340 345 350
 Cys Lys Asp Asp Pro Lys Phe His Ser Tyr Val Ser Leu Pro Phe Gly
 355 360 365
 Cys Thr Arg Ala Gly Val Glu Tyr Arg Leu Leu Gln Ala Ala Tyr Leu
 370 375 380
 Ala Lys Pro Gly Asp Ser Leu Ala Gln Ala Phe Asn Ile Thr Ser Gln
 385 390 395 400
 Asp Asp Val Leu Phe Ala Ile Phe Ser Lys Gly Gln Lys Gln Tyr His
 405 410 415
 His Pro Pro Asp Asp Ser Ala Leu Cys Ala Phe Pro Ile Arg Ala Ile
 420 425 430
 Asn Leu Gln Ile Lys Gly Arg Leu Gln Ser Cys Tyr Gln Gly Glu Gly
 435 440 445
 Asn Leu Glu Leu Asn Trp Leu Leu Gly Lys Asp Val Gln Cys Thr Lys
 450 455 460
 Ala Pro Val Pro Ile Asp Asp Asn Phe Cys Gly Leu Asp Ile Asn Gln
 465 470 475 480
 Pro Leu Gly Gly Ser Thr Pro Val Glu Gly Leu Thr Leu Tyr Thr Thr
 485 490 495
 Ser Arg Asp Arg Met Thr Ser Val Ala Ser Tyr Val Tyr Asn Gly Tyr
 500 505 510
 Ser Val Val Phe Val Gly Thr Lys Ser Gly Lys Leu Lys Lys Ile Arg
 515 520 525
 Ala Asp Gly Pro Pro His Gly Gly Val Gln Tyr Glu Met Val Ser Val
 530 535 540
 Leu Lys Asp Gly Ser Pro Ile Leu Arg Asp Met Ala Phe Ser Ile Asp
 545 550 555 560
 Gln Arg Tyr Leu Tyr Val Met Ser Glu Arg Gln Val Thr Arg Val Pro
 565 570 575

Val	Glu	Ser	Cys	Glu	Gln	Tyr	Thr	Thr	Cys	Gly	Glu	Cys	Leu	Ser	Ser		
			580					585					590				
Gly	Asp	Pro	His	Cys	Gly	Trp	Cys	Ala	Leu	His	Asn	Met	Cys	Ser	Arg		
		595					600					605					
Arg	Asp	Lys	Cys	Gln	Gln	Ala	Trp	Glu	Pro	Asn	Arg	Phe	Ala	Ala	Ser		
	610					615					620						
Ile	Ser	Gln	Cys	Val	Ser	Leu	Ala	Val	His	Pro	Ser	Ser	Ile	Ser	Val		
625					630					635					640		
Ser	Glu	His	Ser	Arg	Leu	Leu	Ser	Leu	Val	Val	Ser	Asp	Ala	Pro	Asp		
				645					650					655			
Leu	Ser	Ala	Gly	Ile	Ala	Cys	Ala	Phe	Gly	Asn	Leu	Thr	Glu	Val	Glu		
			660					665					670				
Gly	Gln	Val	Ser	Gly	Ser	Gln	Val	Ile	Cys	Ile	Ser	Pro	Gly	Pro	Lys		
		675					680					685					
Asp	Val	Pro	Val	Ile	Pro	Leu	Asp	Gln	Asp	Trp	Phe	Gly	Leu	Glu	Leu		
	690					695					700						
Gln	Leu	Arg	Ser	Lys	Glu	Thr	Gly	Lys	Ile	Phe	Val	Ser	Thr	Glu	Phe		
705					710					715					720		
Lys	Phe	Tyr	Asn	Cys	Ser	Ala	His	Gln	Leu	Cys	Leu	Ser	Cys	Val	Asn		
				725					730					735			
Ser	Ala	Phe	Arg	Cys	His	Trp	Cys	Lys	Tyr	Arg	Asn	Leu	Cys	Thr	His		
			740					745					750				
Asp	Pro	Thr	Thr	Cys	Ser	Phe	Gln	Glu	Gly	Arg	Ile	Asn	Ile	Ser	Glu		
		755					760					765					
Asp	Cys	Pro	Gln	Leu	Val	Pro	Thr	Glu	Glu	Ile	Leu	Ile	Pro	Val	Gly		
	770					775					780						
Glu	Val	Lys	Pro	Ile	Thr	Leu	Lys	Ala	Arg	Asn	Leu	Pro	Gln	Pro	Gln		
785					790					795					800		
Ser	Gly	Gln	Arg	Gly	Tyr	Glu	Cys	Val	Leu	Asn	Ile	Gln	Gly	Ala	Ile		
				805					810					815			
His	Arg	Val	Pro	Ala	Leu	Arg	Phe	Asn	Ser	Ser	Ser	Val	Gln	Cys	Gln		
			820					825					830				
Asn	Ser	Ser	Tyr	Gln	Tyr	Asp	Gly	Met	Asp	Ile	Ser	Asn	Leu	Ala	Val		
		835					840					845					
Asp	Phe	Ala	Val	Val	Trp	Asn	Gly	Asn	Phe	Ile	Ile	Asp	Asn	Pro	Gln		
	850					855					860						
Asp	Leu	Lys	Val	His	Leu	Tyr	Lys	Cys	Ala	Ala	Gln	Arg	Glu	Ser	Cys		
865					870					875					880		

Gly Leu Cys Leu Lys Ala Asp Arg Lys Phe Glu Cys Gly Trp Cys Ser
 885 890 895
 Gly Glu Arg Arg Cys Thr Leu His Gln His Cys Thr Ser Pro Ser Ser
 900 905 910
 Pro Trp Leu Asp Trp Ser Ser His Asn Val Lys Cys Ser Asn Pro Gln
 915 920 925
 Ile Thr Glu Ile Leu Thr Val Ser Gly Pro Pro Glu Gly Gly Thr Arg
 930 935 940
 Val Thr Ile His Gly Val Asn Leu Gly Leu Asp Phe Ser Glu Ile Ala
 945 950 955 960
 His His Val Gln Val Ala Gly Val Pro Cys Thr Pro Leu Pro Gly Glu
 965 970 975
 Tyr Ile Ile Ala Glu Gln Ile Val Cys Glu Met Gly His Ala Leu Val
 980 985 990
 Gly Thr Thr Ser Gly Pro Val Arg Leu Cys Ile Gly Glu Cys Lys Pro
 995 1000 1005
 Glu Phe Met Thr Lys Ser His Gln Gln Tyr Thr Phe Val Asn Pro Ser
 1010 1015 1020
 Val Leu Ser Leu Asn Pro Ile Arg Gly Pro Glu Ser Gly Gly Thr Met
 1025 1030 1035 1040
 Val Thr Ile Thr Gly His Tyr Leu Gly Ala Gly Ser Ser Val Ala Val
 1045 1050 1055
 Tyr Leu Gly Asn Gln Thr Cys Glu Phe Tyr Gly Arg Ser Met Ser Glu
 1060 1065 1070
 Ile Val Cys Val Ser Pro Pro Ser Ser Asn Gly Leu Gly Pro Val Pro
 1075 1080 1085
 Val Ser Val Ser Val Asp Arg Ala His Val Asp Ser Asn Leu Gln Phe
 1090 1095 1100
 Glu Tyr Ile Asp Asp Pro Arg Val Gln Arg Ile Glu Pro Glu Trp Ser
 1105 1110 1115 1120
 Ile Ala Ser Gly His Thr Pro Leu Thr Ile Thr Gly Phe Asn Leu Asp
 1125 1130 1135
 Val Ile Gln Glu Pro Arg Ile Arg Val Lys Phe Asn Gly Lys Glu Ser
 1140 1145 1150
 Val Asn Val Cys Lys Val Val Asn Thr Thr Thr Leu Thr Cys Leu Ala
 1155 1160 1165
 Pro Ser Leu Thr Thr Asp Tyr Arg Pro Gly Leu Asp Thr Val Glu Arg
 1170 1175 1180

Pro Asp Glu Phe Gly Phe Val Phe Asn Asn Val Gln Ser Leu Leu Ile
 1185 1190 1195 1200
 Tyr Asn Asp Thr Lys Phe Ile Tyr Tyr Pro Asn Pro Thr Phe Glu Leu
 1205 1210 1215
 Leu Ser Pro Thr Gly Val Leu Asp Gln Lys Pro Gly Ser Pro Ile Ile
 1220 1225 1230
 Leu Lys Gly Lys Asn Leu Cys Pro Pro Ala Ser Gly Gly Ala Lys Leu
 1235 1240 1245
 Asn Tyr Thr Val Leu Ile Gly Glu Thr Pro Cys Ala Val Thr Val Ser
 1250 1255 1260
 Glu Thr Gln Leu Leu Cys Glu Pro Pro Asn Leu Thr Gly Gln His Lys
 1265 1270 1275 1280
 Val Met Val His Val Gly Gly Met Val Phe Ser Pro Gly Ser Val Ser
 1285 1290 1295
 Val Ile Ser Asp Ser Leu Leu Thr Leu Pro Ala Ile Val Ser Ile Ala
 1300 1305 1310
 Ala Gly Gly Ser Leu Leu Leu Ile Ile Val Ile Ile Val Leu Ile Ala
 1315 1320 1325
 Tyr Lys Arg Lys Ser Arg Glu Asn Asp Leu Thr Leu Lys Arg Leu Gln
 1330 1335 1340
 Met Gln Met Asp Asn Leu Glu Ser Arg Val Ala Leu Glu Cys Lys Glu
 1345 1350 1355 1360
 Ala Phe Ala Glu Leu Gln Thr Asp Ile Asn Glu Leu Thr Ser Asp Leu
 1365 1370 1375
 Asp Arg Ser Gly Ile Pro Tyr Leu Asp Tyr Arg Thr Tyr Ala Met Arg
 1380 1385 1390
 Val Leu Phe Pro Gly Ile Glu Asp His Pro Val Leu Arg Glu Leu Glu
 1395 1400 1405
 Val Gln Gly Asn Gly Gln Gln His Val Glu Lys Ala Leu Lys Leu Phe
 1410 1415 1420
 Ala Gln Leu Ile Asn Asn Lys Val Phe Leu Leu Thr Phe Ile Arg Thr
 1425 1430 1435 1440
 Leu Glu Leu Gln Arg Ser Phe Ser Met Arg Asp Arg Gly Asn Val Ala
 1445 1450 1455
 Ser Leu Ile Met Thr Gly Leu Gln Gly Arg Leu Glu Tyr Ala Thr Asp
 1460 1465 1470
 Val Leu Lys Gln Leu Leu Ser Asp Leu Ile Asp Lys Asn Leu Glu Asn
 1475 1480 1485

Lys Asn His Pro Lys Leu Leu Leu Arg Arg Thr Glu Ser Val Ala Glu
 1490 1495 1500
 Lys Met Leu Thr Asn Trp Phe Ala Phe Leu Leu His Lys Phe Leu Lys
 1505 1510 1515 1520
 Glu Cys Ala Gly Glu Pro Leu Phe Met Leu Tyr Cys Ala Ile Lys Gln
 1525 1530 1535
 Gln Met Glu Lys Gly Pro Ile Asp Ala Ile Thr Gly Glu Ala Arg Tyr
 1540 1545 1550
 Ser Leu Ser Glu Asp Lys Leu Ile Arg Gln Gln Ile Glu Tyr Lys Thr
 1555 1560 1565
 Leu Ile Leu Asn Cys Val Asn Pro Asp Asn Glu Asn Ser Pro Glu Ile
 1570 1575 1580
 Pro Val Lys Val Leu Asn Cys Asp Thr Ile Thr Gln Val Lys Glu Lys
 1585 1590 1595 1600
 Ile Leu Asp Ala Val Tyr Lys Asn Val Pro Tyr Ser Gln Arg Pro Arg
 1605 1610 1615
 Ala Val Asp Met Asp Leu Glu Trp Arg Gln Gly Arg Ile Ala Arg Val
 1620 1625 1630
 Val Leu Gln Asp Glu Asp Ile Thr Thr Lys Ile Glu Gly Asp Trp Lys
 1635 1640 1645
 Arg Leu Asn Thr Leu Met His Tyr Gln Val Ser Asp Arg Ser Val Val
 1650 1655 1660
 Ala Leu Val Pro Lys Gln Thr Ser Ser Tyr Asn Ile Pro Ala Ser Ala
 1665 1670 1675 1680
 Ser Ile Ser Arg Thr Ser Ile Ser Arg Tyr Asp Ser Ser Phe Arg Tyr
 1685 1690 1695
 Thr Gly Ser Pro Asp Ser Leu Arg Ser Arg Ala Pro Met Ile Thr Pro
 1700 1705 1710
 Asp Leu Glu Ser Gly Val Lys Val Trp His Leu Val Lys Asn His Asp
 1715 1720 1725
 His Gly Asp Gln Lys Glu Gly Asp Arg Gly Ser Lys Met Val Ser Glu
 1730 1735 1740
 Ile Tyr Leu Thr Arg Leu Leu Ala Thr Lys Gly Thr Leu Gln Lys Phe
 1745 1750 1755 1760
 Val Asp Asp Leu Phe Glu Thr Leu Phe Ser Thr Val His Arg Gly Ser
 1765 1770 1775
 Ala Leu Pro Leu Ala Ile Lys Tyr Met Phe Asp Phe Leu Asp Glu Gln
 1780 1785 1790

Ala Asp Arg His Ser Ile His Asp Thr Asp Val Arg His Thr Trp Lys
1795 1800 1805

Ser Asn Cys Leu Pro Leu Arg Phe Trp Val Asn Val Ile Lys Asn Pro
1810 1815 1820

Gln Phe Val Phe Asp Ile His Lys Gly Ser Ile Thr Asp Ala Cys Leu
1825 1830 1835 1840

Ser Val Val Ala Gln Thr Phe Met Asp Ser Cys Ser Thr Ser Glu His
1845 1850 1855

Arg Leu Gly Lys Asp Ser Pro Ser Asn Lys Leu Leu Tyr Ala Lys Asp
1860 1865 1870

Ile Pro Ser Tyr Lys Ser Trp Val Glu Arg Tyr Tyr Ala Asp Ile Ala
1875 1880 1885

Lys Leu Pro Ala Ile Ser Asp Gln Asp Met Asn Ala Tyr Leu Ala Glu
1890 1895 1900

Gln Ser Arg Leu His Ala Val Glu Phe Asn Met Leu Ser Ala Leu Asn
1905 1910 1915 1920

Glu Ile Tyr Ser Tyr Val Ser Lys Tyr Ser Glu Glu Leu Ile Gly Ala
1925 1930 1935

Leu Glu Gln Asp Glu Gln Ala Arg Arg Gln Arg Leu Ala Tyr Lys Val
1940 1945 1950

Glu Gln Leu Ile Asn Ala Met Ser Ile Glu Ser
1955 1960

<210> 44

<211> 1905

<212> PRT

<213> *Xenopus laevis*

<400> 44

Met Leu Leu His Ala Glu Arg Pro Leu Pro Phe His Leu Trp Thr Phe
1 5 10 15

Leu Val Leu Leu Gly Ser Trp Ile Ala Thr Gly Asp Gly Ser Pro Lys
20 25 30

Asp Phe Arg Thr Phe Thr Gly Ser Asp Trp Ser Leu Thr His Leu Val
35 40 45

Val His Asn Lys Thr Gly Glu Val Tyr Val Gly Ala Ile Asn Arg Ile
50 55 60

Tyr Lys Leu Ser Asn Asn Leu Thr Leu Leu Arg Thr His Val Thr Gly
65 70 75 80

Pro Val Glu Asp Asn Glu Lys Cys Tyr Pro Pro Pro Ser Val Gln Ser

85					90					95					
Cys	Pro	His	Gly	Leu	Ile	Thr	Thr	Asn	Asn	Val	Asn	Lys	Leu	Leu	Leu
			100					105					110		
Ile	Asp	Tyr	Ser	Asp	Asn	Arg	Leu	Ile	Ala	Cys	Gly	Ser	Ala	Ser	Gln
		115					120					125			
Gly	Ile	Cys	Gln	Phe	Leu	Arg	Leu	Asp	Asp	Leu	Phe	Lys	Leu	Gly	Glu
		130					135					140			
Pro	His	His	Arg	Lys	Glu	His	Tyr	Leu	Ser	Ser	Val	Asn	Glu	Ser	Gly
145							150					155			160
Thr	Met	Ser	Gly	Val	Ile	Ile	Glu	Val	Pro	Asn	Gly	Gln	Asn	Lys	Leu
				165					170					175	
Phe	Val	Gly	Thr	Pro	Ile	Asp	Gly	Lys	Ser	Glu	Tyr	Phe	Pro	Thr	Leu
			180					185					190		
Ser	Ser	Arg	Lys	Leu	Leu	Gly	Asn	Glu	Glu	Asn	Ala	Glu	Met	Phe	Gly
		195					200					205			
Phe	Val	Tyr	Gln	Asp	Glu	Phe	Val	Ser	Ser	Gln	Leu	Lys	Ile	Pro	Ser
		210					215					220			
Asp	Thr	Leu	Ser	Lys	Phe	Pro	Thr	Phe	Asp	Ile	Tyr	Tyr	Val	Tyr	Ser
225							230					235			240
Phe	Ser	Ser	Glu	Gln	Phe	Val	Tyr	Tyr	Leu	Thr	Leu	Gln	Leu	Asp	Thr
				245					250					255	
Gln	Leu	Thr	Ser	Pro	Asp	Ser	Thr	Gly	Glu	Gln	Phe	Phe	Thr	Ser	Lys
			260					265					270		
Ile	Val	Arg	Leu	Cys	Val	Asp	Asp	Pro	Lys	Phe	Tyr	Ser	Tyr	Val	Glu
		275					280					285			
Phe	Pro	Ile	Gly	Cys	Met	Lys	Asp	Gly	Val	Glu	Tyr	Arg	Leu	Ile	Gln
		290					295					300			
Asp	Ala	Tyr	Leu	Ser	Lys	Pro	Gly	Lys	Arg	Leu	Ala	Lys	Glu	Leu	Gly
305							310					315			320
Ile	Ser	Glu	Arg	Glu	Asp	Ile	Leu	Phe	Thr	Val	Phe	Ser	Gln	Gly	Gln
				325					330					335	
Lys	Asn	Arg	Ile	Lys	Pro	Pro	Lys	Glu	Ser	Val	Leu	Cys	Leu	Phe	Thr
			340					345					350		
Leu	Lys	Lys	Ile	Lys	Asp	Lys	Ile	Lys	Glu	Arg	Ile	Gln	Ser	Cys	Tyr
		355					360					365			
Arg	Gly	Asp	Gly	Lys	Leu	Ser	Leu	Pro	Trp	Leu	Leu	Asn	Lys	Glu	Leu
		370					375					380			
Gly	Cys	Ile	Asn	Ser	Pro	Leu	Gln	Ile	Asp	Asp	Asn	Phe	Cys	Gly	Gln

385		390		395		400
Asp Phe Asn Gln Pro Leu Gly Gly Thr Val Thr Ile Glu Gly Thr Pro						
	405			410		415
Leu Phe Leu Asp Lys Glu Asp Gly Met Thr Ser Val Ala Ala Tyr Asp						
	420		425			430
Tyr Arg Gly His Thr Val Val Phe Ala Gly Thr Arg Ser Gly Arg Val						
	435		440			445
Lys Lys Ile Leu Val Asp Leu Ser Ala Ser Ser Ser His Leu Val Gln						
	450		455			460
Gln Tyr Glu Asn Val Val Val His Glu Gly Asn Ala Ile Leu Arg Asp						
465		470		475		480
Leu Val Leu Ser Pro Asp Arg Gln Tyr Ile Tyr Ala Met Thr Glu Lys						
	485		490			495
Gln Val Thr Arg Val Pro Val Glu Ser Cys Glu Gln Tyr Glu Ser Cys						
	500		505			510
Asp Thr Cys Leu Gly Ser Arg Asp Pro His Cys Gly Trp Cys Val Leu						
	515		520			525
His Asn Met Cys Ser Arg Lys Asp Lys Cys Glu Arg Ala Asp Glu Leu						
	530		535			540
His Arg Phe Thr Ser Asp Gln Arg Gln Cys Val Gln Leu Thr Val His						
545		550		555		560
Pro Lys Asn Ile Ser Val Thr Val Ser Glu Val Pro Met Val Leu Gln						
	565		570			575
Ala Trp Asn Val Pro Asp Leu Ser Ala Gly Val Asn Cys Ser Phe Glu						
	580		585			590
Asp Phe Thr Glu Met Glu Gly Arg Ile Leu Asp Gly Lys Ile Tyr Cys						
	595		600			605
Thr Ser Pro Ser Ala Lys Glu Val Ile Pro Ile Thr Arg Gly His Gly						
	610		615			620
Asp Lys Arg Val Val Lys Leu Tyr Leu Lys Ser Lys Glu Thr Gly Lys						
625		630		635		640
Lys Phe Ala Ser Val Asp Phe Val Phe Tyr Asn Cys Ser Val His Gln						
	645		650			655
Ser Cys Leu Ser Cys Val Asn Gly Ser Phe Pro Cys His Trp Cys Lys						
	660		665			670
Tyr Arg His Val Cys Thr His Asn Ala Ala Asp Cys Ser Phe Gln Glu						
	675		680			685
Gly Arg Val Asn Met Ser Glu Asp Cys Pro Gln Ile Leu Pro Ser Ser						

995	1000	1005
Pro Ser Thr Gly Lys Ala Glu Ile Gln Ile Leu Ile Asn Arg Ala Thr 1010 1015 1020		
Met Asn Asn Ser Glu Val His Tyr Asn Tyr Thr Glu Asp Pro Thr Val 1025 1030 1035 1040		
Gln Lys Ile Glu Pro Glu Trp Ser Ile Ala Ser Gly Gly Thr Pro Leu 1045 1050 1055		
Ile Val Thr Gly Met Asn Leu Ala Thr Ile Lys Glu Pro Lys Ile Arg 1060 1065 1070		
Ala Lys Tyr Gly Asp Val Glu Lys Glu Asn Asn Cys Thr Leu Tyr Asn 1075 1080 1085		
Asp Thr Thr Met Val Cys Leu Ala Pro Ser Val Asp Asn Pro Leu Arg 1090 1095 1100		
Ser Pro Pro Glu Asn Gly Asp Arg Pro Asp Glu Ile Gly Phe Ile Met 1105 1110 1115 1120		
Asp Asn Val His Ala Leu Leu Ile Val Asn Thr Thr Ser Phe Leu Tyr 1125 1130 1135		
Tyr Pro Asp Pro Val Phe Glu Pro Leu Thr Ala Ser Gly Asn Leu Glu 1140 1145 1150		
Leu Lys Pro Ser Ser Pro Leu Ile Ile Lys Gly Arg Asn Leu Ile Pro 1155 1160 1165		
Ala Ala Pro Gly Asn Phe Arg Leu Asn Tyr Thr Val Leu Ile Gly Asp 1170 1175 1180		
Thr Pro Cys Ala Leu Thr Val Ser Glu Thr Gln Leu Leu Cys Glu Ser 1185 1190 1195 1200		
Pro Asn Leu Thr Gly Gln His Lys Val Thr Ile Lys Ala Gly Gly Phe 1205 1210 1215		
Glu Tyr Ser Pro Gly Thr Leu Gln Ile Tyr Ser Asp Ser Leu Leu Thr 1220 1225 1230		
Leu Pro Ala Ile Ile Gly Ile Gly Gly Gly Gly Gly Leu Leu Leu Leu 1235 1240 1245		
Ile Ile Ile Ile Val Leu Ile Ala Tyr Lys Arg Lys Ser Arg Asp Ala 1250 1255 1260		
Asp Arg Thr Leu Lys Arg Leu Gln Leu Gln Met Asp Asn Leu Glu Ser 1265 1270 1275 1280		
Arg Val Ala Leu Glu Cys Lys Glu Ala Phe Ala Glu Leu Gln Thr Asp 1285 1290 1295		
Ile His Glu Leu Thr Asn Asp Leu Asp Gly Ala Gly Ile Pro Phe Leu		

1300	1305	1310
Glu Tyr Arg Thr Tyr Ala Met Arg Val Leu Phe Pro Gly Ile Glu Asp 1315 1320 1325		
His Pro Val Leu Lys Glu Met Glu Val Gln Ala Asn Val Glu Lys Ser 1330 1335 1340		
Leu Thr Leu Phe Gly Gln Leu Leu Thr Lys Lys His Phe Leu Leu Thr 1345 1350 1355 1360		
Phe Ile Arg Thr Leu Glu Ala Gln Arg Ser Phe Ser Met Arg Asp Arg 1365 1370 1375		
Gly Asn Val Ala Ser Leu Ile Met Thr Ala Leu Gln Gly Glu Met Glu 1380 1385 1390		
Tyr Ala Thr Gly Val Leu Lys Gln Leu Leu Ser Asp Leu Ile Glu Lys 1395 1400 1405		
Asn Leu Glu Ser Lys Asn His Pro Lys Leu Leu Leu Arg Arg Thr Glu 1410 1415 1420		
Ser Val Ala Glu Lys Met Leu Thr Asn Trp Phe Thr Phe Leu Leu Tyr 1425 1430 1435 1440		
Lys Phe Leu Lys Glu Cys Ala Gly Glu Pro Leu Phe Met Leu His Cys 1445 1450 1455		
Ala Ile Lys Gln Gln Met Glu Lys Gly Pro Ile Asp Ala Ile Thr Gly 1460 1465 1470		
Glu Ala Arg Tyr Ser Leu Ser Glu Asp Lys Leu Ile Arg Gln Gln Ile 1475 1480 1485		
Asp Tyr Lys Thr Leu Asn Pro Cys Ala Asp Asp Val Gly Leu Ser Asp 1490 1495 1500		
Glu Ser Cys Cys Arg Ser Pro Gln Thr Leu Asn Cys Val Asn Pro Glu 1505 1510 1515 1520		
Asn Glu Asn Ala Pro Glu Ile Pro Val Lys Val Leu Asn Cys Asp Thr 1525 1530 1535		
Ile Thr Gln Val Lys Glu Lys Leu Leu Asp Ala Val Tyr Lys Gly Val 1540 1545 1550		
Pro Tyr Ser Gln Arg Pro Lys Ala Gly Asp Met Asp Leu Glu Trp Arg 1555 1560 1565		
Gln Gly Arg Met Ala Arg Ile Ile Leu Gln Asp Glu Asp Val Thr Thr 1570 1575 1580		
Lys Ile Asp Asn Asp Trp Lys Arg Leu Asn Thr Leu Ala His Tyr Gln 1585 1590 1595 1600		
Val Thr Asp Gly Ser Ser Val Ala Leu Val Pro Lys Gln Asn Ser Ala		

1605					1610					1615						
Tyr	Asn	Ile	Ser	Asn	Ser	Ser	Thr	Phe	Thr	Lys	Ser	Leu	Ser	Arg	Tyr	
1620					1625					1630						
Glu	Ser	Met	Leu	Arg	Thr	Ala	Ser	Ser	Pro	Asp	Ser	Leu	Arg	Ser	Arg	
1635					1640					1645						
Thr	Pro	Met	Ile	Thr	Pro	Asp	Leu	Glu	Ser	Gly	Thr	Lys	Leu	Trp	His	
1650					1655					1660						
Leu	Val	Lys	Asn	His	Asp	His	Leu	Asp	Gln	Arg	Glu	Gly	Asp	Arg	Gly	
1665					1670					1675					1680	
Ser	Lys	Met	Val	Ser	Glu	Ile	Tyr	Leu	Thr	Arg	Leu	Leu	Ala	Thr	Lys	
1685					1690					1695						
Gly	Thr	Leu	Gln	Lys	Phe	Val	Asp	Asp	Leu	Phe	Glu	Thr	Ile	Phe	Ser	
1700					1705					1710						
Thr	Ala	His	Arg	Gly	Ser	Ala	Leu	Pro	Leu	Ala	Ile	Lys	Tyr	Met	Phe	
1715					1720					1725						
Asp	Phe	Leu	Asp	Glu	Gln	Ala	Asp	Lys	His	Gln	Ile	Thr	Asp	Tyr	Asp	
1730					1735					1740						
Val	Arg	His	Thr	Trp	Lys	Ser	Asn	Cys	Leu	Pro	Leu	Arg	Phe	Trp	Val	
1745					1750					1755					1760	
Asn	Val	Ile	Lys	Asn	Pro	Gln	Phe	Val	Phe	Asp	Ile	His	Lys	Asn	Ser	
1765					1770					1775						
Ile	Thr	Asp	Ala	Cys	Leu	Ser	Val	Val	Ala	Gln	Thr	Phe	Met	Asp	Ser	
1780					1785					1790						
Cys	Ser	Thr	Ser	Glu	His	Lys	Leu	Gly	Lys	Asp	Ser	Pro	Ser	Asn	Lys	
1795					1800					1805						
Leu	Leu	Tyr	Ala	Lys	Asp	Ile	Pro	Asn	Tyr	Lys	Ser	Trp	Val	Glu	Arg	
1810					1815					1820						
Tyr	Tyr	Ala	Asp	Ile	Ala	Lys	Met	Pro	Val	Ile	Ser	Asp	Gln	Asp	Met	
1825					1830					1835					1840	
Ser	Ala	Tyr	Leu	Ala	Glu	Gln	Ser	Arg	Leu	His	Leu	Ser	Gln	Phe	Asn	
1845					1850					1855						
Ser	Met	Ser	Ala	Leu	His	Glu	Ile	Tyr	Ser	Tyr	Ile	Thr	Lys	Tyr	Arg	
1860					1865					1870						
Asp	Glu	Ile	Leu	Thr	Ala	Leu	Glu	Lys	Asp	Glu	Gln	Ala	Arg	Arg	Gln	
1875					1880					1885						
Arg	Leu	Arg	Ser	Lys	Leu	Glu	Gln	Val	Ile	Asp	Thr	Met	Ala	Gln	Ser	
1890					1895					1900						
Ser																

1905

<210> 45

<211> 813

<212> PRT

<213> Homo sapiens

<400> 45

Gly Thr Arg Val Val Cys Lys Val Val Asn Thr Thr Thr Leu Thr Cys
1 5 10 15

Leu Ala Pro Ser Leu Thr Thr Asp Tyr Arg Pro Gly Leu Asp Thr Val
20 25 30

Glu Arg Pro Asp Glu Phe Gly Phe Val Phe Asn Asn Val Gln Ser Leu
35 40 45

Leu Ile Tyr Asn Asp Thr Lys Phe Ile Tyr Tyr Pro Asn Pro Thr Phe
50 55 60

Glu Leu Leu Ser Pro Thr Gly Val Leu Asp Gln Lys Pro Gly Ser Pro
65 70 75 80

Ile Ile Leu Lys Gly Lys Asn Leu Cys Pro Pro Ala Ser Gly Gly Ala
85 90 95

Lys Leu Asn Tyr Thr Val Leu Ile Gly Glu Thr Pro Cys Ala Val Thr
100 105 110

Val Ser Glu Thr Gln Leu Leu Cys Glu Pro Pro Asn Leu Thr Gly Gln
115 120 125

His Lys Val Met Val His Val Gly Gly Met Val Phe Ser Pro Gly Ser
130 135 140

Val Ser Val Ile Ser Asp Ser Leu Leu Thr Leu Pro Ala Ile Val Ser
145 150 155 160

Ile Ala Ala Gly Gly Ser Leu Leu Leu Ile Ile Val Ile Ile Val Leu
165 170 175

Ile Ala Tyr Lys Arg Lys Ser Arg Glu Asn Asp Leu Thr Leu Lys Arg
180 185 190

Leu Gln Met Gln Met Asp Asn Leu Glu Ser Arg Val Ala Leu Glu Cys
195 200 205

Lys Glu Ala Phe Ala Glu Leu Gln Thr Asp Ile Asn Glu Leu Thr Ser
210 215 220

Asp Leu Asp Arg Ser Gly Ile Pro Tyr Leu Asp Tyr Arg Thr Tyr Ala
225 230 235 240

Met Arg Val Leu Phe Pro Gly Ile Glu Asp His Pro Val Leu Arg Glu
245 250 255

Leu	Glu	Val	Gln	Gly	Asn	Gly	Gln	Gln	His	Val	Glu	Lys	Ala	Leu	Lys	
			260					265					270			
Leu	Phe	Ala	Gln	Leu	Ile	Asn	Asn	Lys	Val	Phe	Leu	Leu	Thr	Phe	Ile	
		275					280					285				
Arg	Thr	Leu	Glu	Leu	Gln	Arg	Ser	Phe	Ser	Met	Arg	Asp	Arg	Gly	Asn	
	290					295					300					
Val	Ala	Ser	Leu	Ile	Met	Thr	Gly	Leu	Gln	Gly	Arg	Leu	Glu	Tyr	Ala	
305					310					315					320	
Thr	Asp	Val	Leu	Lys	Gln	Leu	Leu	Ser	Asp	Leu	Ile	Asp	Lys	Asn	Leu	
				325					330					335		
Glu	Asn	Lys	Asn	His	Pro	Lys	Leu	Leu	Leu	Arg	Arg	Thr	Glu	Ser	Val	
			340					345					350			
Ala	Glu	Lys	Met	Leu	Thr	Asn	Trp	Phe	Ala	Phe	Leu	Leu	His	Lys	Phe	
		355					360					365				
Leu	Lys	Glu	Cys	Ala	Gly	Glu	Pro	Leu	Phe	Met	Leu	Tyr	Cys	Ala	Ile	
	370					375					380					
Lys	Gln	Gln	Met	Glu	Lys	Gly	Pro	Ile	Asp	Ala	Ile	Thr	Gly	Glu	Ala	
385					390					395					400	
Arg	Tyr	Ser	Leu	Ser	Glu	Asp	Lys	Leu	Ile	Arg	Gln	Gln	Ile	Glu	Tyr	
			405						410					415		
Lys	Thr	Leu	Ile	Leu	Asn	Cys	Val	Asn	Pro	Asp	Asn	Glu	Asn	Ser	Pro	
			420					425					430			
Glu	Ile	Pro	Val	Lys	Val	Leu	Asn	Cys	Asp	Thr	Ile	Thr	Gln	Val	Lys	
	435						440					445				
Glu	Lys	Ile	Leu	Asp	Ala	Val	Tyr	Lys	Asn	Val	Pro	Tyr	Ser	Gln	Arg	
	450					455					460					
Pro	Arg	Ala	Val	Asp	Met	Asp	Leu	Glu	Trp	Arg	Gln	Gly	Arg	Ile	Ala	
465					470					475					480	
Arg	Val	Val	Leu	Gln	Asp	Glu	Asp	Ile	Thr	Thr	Lys	Ile	Glu	Gly	Asp	
			485						490					495		
Trp	Lys	Arg	Leu	Asn	Thr	Leu	Met	His	Tyr	Gln	Val	Ser	Asp	Arg	Ser	
			500					505					510			
Val	Val	Ala	Leu	Val	Pro	Lys	Gln	Thr	Ser	Ser	Tyr	Asn	Ile	Pro	Ala	
		515					520					525				
Ser	Ala	Ser	Ile	Ser	Arg	Thr	Ser	Ile	Ser	Arg	Tyr	Asp	Ser	Ser	Phe	
	530					535					540					
Arg	Tyr	Thr	Gly	Ser	Pro	Asp	Ser	Leu	Arg	Ser	Arg	Ala	Pro	Met	Ile	
545					550					555					560	

Thr Pro Asp Leu Glu Ser Gly Val Lys Val Trp His Leu Val Lys Asn
 565 570 575
 His Asp His Gly Asp Gln Lys Glu Gly Asp Arg Gly Ser Lys Met Val
 580 585 590
 Ser Glu Ile Tyr Leu Thr Arg Leu Leu Ala Thr Lys Gly Thr Leu Gln
 595 600 605
 Lys Phe Val Asp Asp Leu Phe Glu Thr Leu Leu Ser Thr Val His Arg
 610 615 620
 Gly Ser Ala Leu Pro Leu Ala Ile Lys Tyr Met Phe Asp Phe Leu Asp
 625 630 635 640
 Glu Gln Ala Asp Arg His Ser Ile His Asp Thr Asp Val Arg His Thr
 645 650 655
 Trp Lys Ser Asn Cys Leu Pro Leu Arg Phe Trp Val Asn Val Ile Lys
 660 665 670
 Asn Pro Gln Phe Val Phe Asp Ile His Lys Gly Ser Ile Thr Asp Ala
 675 680 685
 Cys Leu Ser Val Val Ala Gln Thr Phe Met Asp Ser Cys Ser Thr Ser
 690 695 700
 Glu His Arg Leu Gly Lys Asp Ser Pro Ser Asn Lys Leu Leu Tyr Ala
 705 710 715 720
 Lys Asp Ile Pro Ser Tyr Lys Ser Trp Val Glu Arg Tyr Tyr Ala Asp
 725 730 735
 Ile Ala Lys Leu Pro Ala Ile Ser Asp Gln Asp Met Asn Ala Tyr Leu
 740 745 750
 Ala Glu Gln Ser Arg Leu His Ala Val Glu Phe Asn Met Leu Ser Ala
 755 760 765
 Leu Asn Glu Ile Tyr Ser Tyr Val Ser Lys Tyr Ser Glu Glu Leu Ile
 770 775 780
 Gly Ala Leu Glu Gln Asp Glu Gln Ala Arg Arg Gln Arg Leu Ala Tyr
 785 790 795 800
 Lys Val Glu Gln Leu Ile Asn Ala Met Ser Ile Glu Ser
 805 810

<210> 46

<211> 593

<212> PRT

<213> Homo sapiens

<400> 46

Val Glu Leu Thr Val Val Trp Asn Gly His Phe Asn Ile Asp Asn Pro
 1 5 10 15

Ala Gln Asn Lys Val His Leu Tyr Lys Cys Gly Ala Met Arg Glu Ser
 20 25 30
 Cys Gly Leu Cys Leu Lys Ala Asp Pro Asp Phe Ala Cys Gly Trp Cys
 35 40 45
 Gln Gly Pro Gly Gln Cys Thr Leu Arg Gln His Cys Pro Ala Gln Glu
 50 55 60
 Ser Gln Trp Leu Glu Leu Ser Gly Ala Lys Ser Lys Cys Thr Asn Pro
 65 70 75 80
 Arg Ile Thr Glu Ile Ile Pro Val Thr Gly Pro Arg Glu Gly Gly Thr
 85 90 95
 Lys Val Thr Ile Arg Gly Glu Asn Leu Gly Leu Glu Phe Arg Asp Ile
 100 105 110
 Ala Ser His Val Lys Val Ala Gly Val Glu Cys Ser Pro Leu Val Asp
 115 120 125
 Gly Tyr Ile Pro Ala Glu Gln Ile Val Cys Glu Met Gly Glu Ala Lys
 130 135 140
 Pro Ser Gln His Ala Gly Phe Val Glu Ile Cys Val Ala Val Cys Arg
 145 150 155 160
 Pro Glu Phe Met Ala Arg Ser Ser Gln Leu Tyr Tyr Phe Met Thr Leu
 165 170 175
 Thr Leu Ser Asp Leu Lys Pro Ser Arg Gly Pro Met Ser Gly Gly Thr
 180 185 190
 Gln Val Thr Ile Thr Gly Thr Asn Leu Asn Ala Gly Ser Asn Val Val
 195 200 205
 Val Met Phe Gly Lys Gln Pro Cys Leu Phe His Arg Arg Ser Pro Ser
 210 215 220
 Tyr Ile Val Cys Asn Thr Thr Ser Ser Asp Glu Val Leu Glu Met Lys
 225 230 235 240
 Val Ser Val Gln Val Asp Arg Ala Lys Ile His Gln Asp Leu Val Phe
 245 250 255
 Gln Tyr Val Glu Asp Pro Thr Ile Val Arg Ile Glu Pro Glu Trp Ser
 260 265 270
 Ile Val Ser Gly Asn Thr Pro Ile Ala Val Trp Gly Thr His Leu Asp
 275 280 285
 Leu Ile Gln Asn Pro Gln Ile Arg Ala Lys His Gly Gly Lys Glu His
 290 295 300
 Ile Asn Ile Cys Glu Val Leu Asn Ala Thr Glu Met Thr Cys Gln Ala
 305 310 315 320

Pro Ala Leu Ala Leu Gly Pro Asp His Gln Ser Asp Leu Thr Glu Arg
 325 330 335
 Pro Glu Glu Phe Gly Phe Ile Leu Asp Asn Val Gln Ser Leu Leu Ile
 340 345 350
 Leu Asn Lys Thr Asn Phe Thr Tyr Tyr Pro Asn Pro Val Phe Glu Ala
 355 360 365
 Phe Gly Pro Ser Gly Ile Leu Glu Leu Lys Pro Gly Thr Pro Ile Ile
 370 375 380
 Leu Lys Gly Lys Asn Leu Ile Pro Pro Val Ala Gly Gly Asn Val Lys
 385 390 395 400
 Leu Asn Tyr Thr Val Leu Val Gly Glu Lys Pro Cys Thr Val Thr Val
 405 410 415
 Ser Asp Val Gln Leu Leu Cys Glu Ser Pro Asn Leu Ile Gly Arg His
 420 425 430
 Lys Val Met Ala Arg Val Gly Gly Met Glu Tyr Ser Pro Gly Met Val
 435 440 445
 Tyr Ile Ala Pro Asp Ser Pro Leu Ser Leu Pro Ala Ile Val Ser Ile
 450 455 460
 Ala Val Ala Gly Gly Leu Leu Ile Ile Phe Ile Val Ala Val Leu Ile
 465 470 475 480
 Ala Tyr Lys Arg Lys Ser Arg Glu Ser Asp Leu Thr Leu Lys Arg Leu
 485 490 495
 Gln Met Gln Met Asp Asn Leu Glu Ser Arg Val Ala Leu Glu Cys Lys
 500 505 510
 Glu Gly Thr Glu Trp Pro His Ala Gly Gly His Val Cys Val Arg Val
 515 520 525
 Cys Ile Cys Val Cys Met His Ile Cys Val Cys Val Cys Ile Cys Phe
 530 535 540
 Ile Tyr Lys Gln Ala Gly Trp Ala Ala Val Gly Ser Ala Gly Gly Trp
 545 550 555 560
 Arg Cys Val Cys Leu Cys Glu Cys Val Cys Val His Val Cys Val Cys
 565 570 575
 Thr Ser Val Cys Ile Tyr Val Ser Tyr Thr Ser Lys Gln Ala Gly Gln
 580 585 590
 Gln

<210> 47

<211> 477
 <212> PRT
 <213> Homo sapiens

<400> 47

Met	Leu	Pro	Pro	Gly	Ser	Asn	Gly	Thr	Ala	Tyr	Pro	Gly	Gln	Phe	Ala	1	5	10	15
Leu	Tyr	Gln	Gln	Leu	Ala	Gln	Gly	Asn	Ala	Val	Gly	Gly	Ser	Ala	Gly	20	25	30	
Ala	Pro	Pro	Leu	Gly	Pro	Ser	Gln	Val	Val	Thr	Ala	Cys	Leu	Leu	Thr	35	40	45	
Leu	Leu	Ile	Ile	Trp	Thr	Leu	Leu	Gly	Asn	Val	Leu	Val	Cys	Ala	Ala	50	55	60	
Ile	Val	Arg	Ser	Arg	His	Leu	Arg	Ala	Asn	Met	Thr	Asn	Val	Phe	Ile	65	70	75	80
Val	Ser	Leu	Ala	Val	Ser	Asp	Leu	Phe	Val	Ala	Leu	Leu	Val	Met	Pro	85	90	95	
Trp	Lys	Ala	Val	Ala	Glu	Val	Ala	Gly	Tyr	Trp	Pro	Phe	Gly	Ala	Phe	100	105	110	
Cys	Asp	Val	Trp	Val	Ala	Phe	Asp	Ile	Met	Cys	Ser	Thr	Ala	Ser	Ile	115	120	125	
Leu	Asn	Leu	Cys	Val	Ile	Ser	Val	Asp	Arg	Tyr	Trp	Ala	Ile	Ser	Arg	130	135	140	
Pro	Phe	Arg	Tyr	Lys	Arg	Lys	Met	Thr	Gln	Arg	Met	Ala	Leu	Val	Met	145	150	155	160
Val	Gly	Leu	Ala	Trp	Thr	Leu	Ser	Ile	Leu	Ile	Ser	Phe	Ile	Pro	Val	165	170	175	
Gln	Leu	Asn	Trp	His	Arg	Asp	Gln	Ala	Ala	Ser	Trp	Gly	Gly	Leu	Asp	180	185	190	
Leu	Pro	Asn	Asn	Leu	Ala	Asn	Trp	Thr	Pro	Trp	Glu	Glu	Asp	Phe	Trp	195	200	205	
Glu	Pro	Asp	Val	Asn	Ala	Glu	Asn	Cys	Asp	Ser	Ser	Leu	Asn	Arg	Thr	210	215	220	
Tyr	Ala	Ile	Ser	Ser	Ser	Leu	Ile	Ser	Phe	Tyr	Ile	Pro	Val	Ala	Ile	225	230	235	240
Met	Ile	Val	Thr	Tyr	Thr	Arg	Ile	Tyr	Arg	Ile	Ala	Gln	Val	Gln	Ile	245	250	255	
Arg	Arg	Ile	Ser	Ser	Leu	Glu	Arg	Ala	Ala	Glu	His	Ala	Gln	Ser	Cys	260	265	270	
Arg	Ser	Ser	Ala	Ala	Cys	Ala	Pro	Asp	Thr	Ser	Leu	Arg	Ala	Ser	Ile				

275	280	285
Lys Lys Glu Thr Lys Val	Leu Lys Thr Leu Ser Val	Ile Met Gly Val
290	295	300
Phe Val Cys Cys Trp Leu Pro Phe Phe Ile Leu Asn Cys Met Val Pro		
305	310	315 320
Phe Cys Ser Gly His Pro Glu Gly Pro Pro Ala Gly Phe Pro Cys Val		
	325	330 335
Ser Glu Thr Thr Phe Asp Val Phe Val Trp Phe Gly Trp Ala Asn Ser		
	340	345 350
Ser Leu Asn Pro Val Ile Tyr Ala Phe Asn Ala Asp Phe Gln Lys Val		
	355	360 365
Phe Ala Gln Leu Leu Gly Cys Ser His Phe Cys Ser Arg Thr Pro Val		
	370	375 380
Glu Thr Val Asn Ile Ser Asn Glu Leu Ile Ser Tyr Asn Gln Asp Ile		
385	390	395 400
Val Phe His Lys Glu Ile Ala Ala Ala Tyr Ile His Met Met Pro Asn		
	405	410 415
Ala Val Thr Pro Gly Asn Arg Glu Val Asp Asn Asp Glu Glu Glu Gly		
	420	425 430
Pro Phe Asp Arg Met Phe Gln Ile Tyr Gln Thr Ser Pro Asp Gly Asp		
	435	440 445
Pro Val Ala Glu Ser Val Trp Glu Leu Asp Cys Glu Gly Glu Ile Ser		
	450	455 460
Leu Asp Lys Ile Thr Pro Phe Thr Pro Asn Gly Phe His		
465	470	475

<210> 48

<211> 475

<212> PRT

<213> Homo sapiens

<400> 48

Met	Leu	Pro	Pro	Gly	Arg	Asn	Arg	Thr	Ala	Gln	Pro	Ala	Arg	Leu	Gly
1				5					10					15	

Leu	Gln	Arg	Gln	Leu	Ala	Gln	Val	Asp	Ala	Pro	Ala	Gly	Ser	Ala	Thr
			20					25						30	

Pro	Leu	Gly	Pro	Ala	Gln	Val	Val	Thr	Ala	Gly	Leu	Leu	Thr	Leu	Leu
		35						40						45	

Ile	Val	Trp	Thr	Leu	Leu	Gly	Asn	Val	Leu	Val	Cys	Ala	Ala	Ile	Val
				50			55					60			

Arg	Ser	Arg	His	Leu	Arg	Ala	Lys	Met	Thr	Asn	Ile	Phe	Ile	Val	Ser	
65					70					75					80	
Leu	Ala	Val	Ser	Asp	Leu	Phe	Val	Ala	Leu	Leu	Val	Met	Pro	Trp	Lys	
				85					90					95		
Ala	Val	Ala	Glu	Val	Ala	Gly	Tyr	Trp	Pro	Phe	Gly	Thr	Phe	Cys	Asp	
			100					105					110			
Ile	Trp	Val	Ala	Phe	Asp	Ile	Met	Cys	Ser	Thr	Ala	Ser	Ile	Leu	Asn	
		115					120					125				
Leu	Cys	Ile	Ile	Ser	Val	Asp	Arg	Tyr	Trp	Ala	Ile	Ser	Arg	Pro	Phe	
	130					135					140					
Arg	Tyr	Glu	Arg	Lys	Met	Thr	Gln	Arg	Val	Ala	Leu	Val	Met	Val	Gly	
145					150					155					160	
Leu	Ala	Trp	Thr	Leu	Ser	Ile	Leu	Ile	Ser	Phe	Ile	Pro	Val	Gln	Leu	
				165					170					175		
Asn	Trp	His	Arg	Asp	Lys	Ala	Gly	Ser	Gln	Gly	Gln	Glu	Gly	Leu	Leu	
			180					185					190			
Ser	Asn	Gly	Thr	Pro	Trp	Glu	Glu	Gly	Trp	Glu	Leu	Glu	Gly	Arg	Thr	
		195					200					205				
Glu	Asn	Cys	Asp	Ser	Ser	Leu	Asn	Arg	Thr	Tyr	Ala	Ile	Ser	Ser	Ser	
	210					215					220					
Leu	Ile	Ser	Phe	Tyr	Ile	Pro	Val	Ala	Ile	Met	Ile	Val	Thr	Tyr	Thr	
225					230					235					240	
Arg	Ile	Tyr	Arg	Ile	Ala	Gln	Val	Gln	Ile	Arg	Arg	Ile	Ser	Ser	Leu	
				245					250					255		
Glu	Arg	Ala	Ala	Glu	His	Ala	Gln	Ser	Cys	Arg	Ser	Arg	Gly	Ala	Tyr	
			260					265					270			
Glu	Pro	Asp	Pro	Ser	Leu	Arg	Ala	Ser	Ile	Lys	Lys	Glu	Thr	Lys	Val	
		275					280					285				
Phe	Lys	Thr	Leu	Ser	Met	Ile	Met	Gly	Val	Phe	Val	Cys	Cys	Trp	Leu	
	290					295					300					
Pro	Phe	Phe	Ile	Leu	Asn	Cys	Met	Val	Pro	Phe	Cys	Ser	Ser	Gly	Asp	
305					310					315					320	
Ala	Glu	Gly	Pro	Lys	Thr	Gly	Phe	Pro	Cys	Val	Ser	Glu	Thr	Thr	Phe	
				325					330					335		
Asp	Ile	Phe	Val	Trp	Phe	Gly	Trp	Ala	Asn	Ser	Ser	Leu	Asn	Pro	Ile	
			340					345					350			
Ile	Tyr	Ala	Phe	Asn	Ala	Asp	Phe	Arg	Lys	Val	Phe	Ala	Gln	Leu	Leu	
		355					360					365				

Gly Cys Ser His Phe Cys Phe Arg Thr Pro Val Gln Thr Val Asn Ile
 370 375 380

Ser Asn Glu Leu Ile Ser Tyr Asn Gln Asp Thr Val Phe His Lys Glu
 385 390 395 400

Ile Ala Thr Ala Tyr Val His Met Ile Pro Asn Ala Val Ser Ser Gly
 405 410 415

Asp Arg Glu Val Gly Glu Glu Glu Glu Gly Pro Phe Asp His Met
 420 425 430

Ser Gln Ile Ser Pro Thr Thr Pro Asp Gly Asp Leu Ala Ala Glu Ser
 435 440 445

Val Trp Glu Leu Asp Cys Glu Glu Glu Val Ser Leu Gly Lys Ile Ser
 450 455 460

Pro Leu Thr Pro Asn Cys Phe Asp Lys Thr Ala
 465 470 475

<210> 49
 <211> 457
 <212> PRT
 <213> Homo sapiens

<400> 49
 Met Tyr Gln Pro Phe Gln His Leu Asp Ser Asp Gln Val Ala Ser Trp
 1 5 10 15

Gln Ser Pro Glu Met Leu Met Asn Lys Ser Val Ser Arg Glu Ser Gln
 20 25 30

Arg Arg Lys Glu Leu Val Ala Gly Gln Ile Val Thr Gly Ser Leu Leu
 35 40 45

Leu Leu Leu Ile Phe Trp Thr Leu Phe Gly Asn Ile Leu Val Cys Thr
 50 55 60

Ala Val Met Arg Phe Arg His Leu Arg Ser Arg Val Thr Asn Ile Phe
 65 70 75 80

Ile Val Ser Leu Ala Val Ser Asp Leu Leu Val Ala Leu Leu Val Met
 85 90 95

Pro Trp Lys Ala Val Ala Glu Val Ala Gly His Trp Pro Phe Gly Ala
 100 105 110

Phe Cys Asp Ile Trp Val Ala Phe Asp Ile Met Cys Ser Thr Ala Ser
 115 120 125

Ile Leu Asn Leu Cys Val Ile Ser Val Asp Arg Tyr Trp Ala Ile Ser
 130 135 140

Ser Pro Phe Arg Tyr Glu Arg Lys Met Thr Gln Arg Val Ala Leu Leu
 145 150 155 160

Met Ile Ser Thr Ala Trp Ala Leu Ser Val Leu Ile Ser Phe Ile Pro
 165 170 175
 Val Gln Leu Ser Trp His Lys Ser Glu Thr Glu Asp His Leu Leu Ser
 180 185 190
 Asn His Ser Thr Gly Asn Cys Asp Ser Ser Leu Asn Arg Thr Tyr Ala
 195 200 205
 Ile Ser Ser Ser Leu Ile Ser Phe Tyr Ile Pro Val Ala Ile Met Ile
 210 215 220
 Val Thr Tyr Thr Arg Ile Tyr Arg Ile Ala Gln Ile Gln Ile Lys Arg
 225 230 235 240
 Ile Ser Thr Leu Glu Arg Ala Ala Glu His Ala Gln Ser Cys Arg Ser
 245 250 255
 Asn Arg Val Asp Ser Cys Ser Arg His His Gln Thr Ser Leu Arg Thr
 260 265 270
 Ser Ile Lys Lys Glu Thr Lys Val Leu Lys Thr Leu Ser Ile Ile Met
 275 280 285
 Gly Val Phe Val Cys Cys Trp Leu Pro Phe Phe Ile Leu Asn Cys Met
 290 295 300
 Val Pro Phe Cys Asp Arg Ser Pro Gly His Pro Gln Ala Gly Leu Pro
 305 310 315 320
 Cys Val Ser Glu Thr Thr Phe Asp Ile Phe Val Trp Phe Gly Trp Ala
 325 330 335
 Asn Ser Ser Leu Asn Pro Ile Ile Tyr Ala Phe Asn Ala Asp Phe Arg
 340 345 350
 Lys Val Phe Ser Ser Leu Leu Gly Cys Gly His Trp Cys Ser Thr Thr
 355 360 365
 Pro Val Glu Thr Val Asn Ile Ser Asn Glu Leu Ile Ser Tyr Asn Gln
 370 375 380
 Asp Thr Leu Phe His Lys Asp Ile Val Thr Ala Tyr Val Asn Met Ile
 385 390 395 400
 Pro Asn Val Val Asp Cys Ile Asp Asp Asn Glu Asp Ala Phe Asp His
 405 410 415
 Met Ser Gln Ile Ser Gln Thr Ser Ala Asn Asn Glu Leu Ala Thr Asp
 420 425 430
 Ser Met Cys Glu Leu Asp Ser Glu Val Asp Ile Ser Leu His Lys Ile
 435 440 445
 Thr Pro Ser Met Ser Asn Gly Ile His
 450 455

<210> 50
 <211> 486
 <212> PRT
 <213> Gallus gallus

<400> 50

Met	Leu	Arg	Gly	Gly	Arg	Ser	Pro	Leu	Pro	Pro	Pro	Ala	Gly	Pro	Pro
1				5					10					15	
Gly	Gly	Ala	Arg	Gly	Gln	Ala	Gly	Ala	Gly	Ala	Ala	Gln	Val	Ala	Ala
			20					25					30		
Gly	Ser	Leu	Leu	Ala	Leu	Leu	Ile	Leu	Trp	Thr	Leu	Phe	Gly	Asn	Val
		35					40					45			
Leu	Val	Cys	Ala	Ala	Ile	Val	Arg	Tyr	Arg	His	Leu	Arg	Ser	Lys	Val
	50					55					60				
Thr	Asn	Ile	Phe	Ile	Val	Ser	Leu	Ala	Val	Ser	Asp	Leu	Leu	Val	Ala
65					70					75					80
Val	Leu	Val	Met	Pro	Trp	Lys	Ala	Val	Ala	Glu	Val	Ala	Gly	Tyr	Trp
			85						90					95	
Pro	Phe	Gly	Ala	Phe	Gln	Asn	Val	Trp	Val	Ala	Phe	Asp	Ile	Met	Cys
			100					105					110		
Ser	Thr	Ala	Ser	Ile	Leu	Asn	Leu	Cys	Val	Ile	Ser	Val	Asp	Arg	Tyr
		115					120					125			
Trp	Ala	Ile	Ser	Ser	Pro	Phe	Arg	Tyr	Glu	Arg	Lys	Met	Thr	Gln	Arg
	130					135					140				
Leu	Ala	Leu	Val	Met	Ile	Gly	Val	Ala	Trp	Ala	Leu	Ser	Val	Leu	Ile
145					150				155						160
Ser	Phe	Ile	Pro	Val	Gln	Leu	Asn	Trp	His	Arg	Gly	Gly	Asp	Ala	Ala
			165					170					175		
Thr	Ala	Ala	Ala	Ala	Gly	Asp	Ile	Glu	Asp	Gly	Phe	Asp	Thr	Gly	Trp
			180					185					190		
Glu	Ala	Ala	Gly	Ala	Phe	Thr	Thr	Trp	Ala	Glu	Asp	Met	Ser	Thr	Thr
	195						200					205			
Trp	Val	Ala	Leu	Ala	Ala	Met	Thr	Pro	Ser	Glu	Gly	Thr	Ser	Gly	Ser
	210					215					220				
Asn	Asn	Thr	Val	Pro	Gly	Pro	Ser	Glu	Ser	Cys	Asp	Ser	Ser	Leu	Asn
225					230					235					240
Arg	Thr	Tyr	Ala	Ile	Ser	Ser	Ser	Leu	Ile	Ser	Phe	Tyr	Ile	Pro	Val
			245					250					255		
Ala	Ile	Met	Ile	Val	Thr	Tyr	Thr	Arg	Ile	Tyr	Arg	Ile	Ala	Gln	Val

260	265	270
Gln Ile Arg Arg Ile Ser Ser Leu Glu Arg Ala Ala Glu His Ala Gln 275 280 285		
Ser Cys Arg Cys Asn His Val Asp Cys His His His Thr Ser Leu Lys 290 295 300		
Ser Ser Ile Arg Lys Glu Thr Lys Val Leu Lys Thr Leu Ser Ile Ile 305 310 315 320		
Met Gly Val Phe Val Cys Cys Trp Leu Pro Phe Phe Ile Leu Asn Cys 325 330 335		
Met Val Pro Phe Cys Glu Ser Pro Pro Ser Asp Pro Arg Ala Gly Leu 340 345 350		
Pro Cys Val Ser Glu Thr Thr Phe Asn Ile Phe Val Trp Phe Gly Trp 355 360 365		
Ala Asn Ser Ser Leu Asn Pro Ile Ile Tyr Ala Phe Asn Ala Asp Phe 370 375 380		
Arg Lys Val Phe Ser Asn Leu Leu Gly Cys Gly Gln Phe Cys Ser Ser 385 390 395 400		
Thr Pro Val Glu Thr Val Asn Ile Ser Asn Glu Leu Ile Ser Tyr His 405 410 415		
Gln Asp Thr Phe His Lys Glu Ile Val Thr Ala Tyr Val Asn Met Ile 420 425 430		
Pro Asn Val Val Asp Cys Glu Glu Asn Arg Glu Asp Pro Phe Asp Arg 435 440 445		
Met Ser Gln Ile Ser Pro Asp Pro Glu Val Ala Thr Asp Ser Val Cys 450 455 460		
Glu Leu Asp Cys Glu Gly Glu Ile Ser Leu Gly Lys Ile Thr Pro Phe 465 470 475 480		
Thr Pro Asn Gly Leu His 485		

<210> 51
 <211> 458
 <212> PRT
 <213> Anguilla anguilla

<400> 51
 Met Gly Ser Pro Ala Lys Tyr Leu Ser Val His Glu Thr Gln Ser Val
 1 5 10 15
 Pro Phe Phe Ile Gly Glu Ile Met Trp Asn Thr Ser Glu Ser Ala Glu
 20 25 30

Lys Thr Asp Gly Lys Lys Glu Leu Ile Val Arg Thr Val Thr Gly Cys
 35 40 45

Leu Leu Ser Leu Leu Ile Leu Trp Thr Leu Leu Gly Asn Ile Leu Val
 50 55 60

Cys Ser Ala Val Leu Lys Phe Arg His Leu Arg Thr Lys Val Thr Asn
 65 70 75 80

Ile Phe Ile Val Ser Leu Ala Val Ser Asp Leu Phe Val Ala Val Leu
 85 90 95

Val Met Pro Trp Lys Ala Val Ala Glu Val Ala Gly Tyr Trp Pro Phe
 100 105 110

Gly Pro Phe Cys Asn Ile Trp Val Ala Phe Asp Ile Met Cys Ser Thr
 115 120 125

Ala Ser Ile Leu Asn Leu Cys Ile Ile Ser Val Asp Arg Tyr Trp Ala
 130 135 140

Ile Ser Ser Pro Phe Arg Tyr Glu Arg Lys Met Thr Gln Arg Val Ala
 145 150 155 160

Phe Val Met Ile Ser Val Thr Trp Thr Leu Ser Val Leu Ile Ser Phe
 165 170 175

Ile Pro Val Gln Leu Asn Trp His Lys Ala Ser Asp Glu Glu Val Trp
 180 185 190

Ile Asn Gly Thr Ser Phe Gly Glu Lys Ser Glu Asn Cys Asp Ser Ser
 195 200 205

Leu Asn Arg Glu Tyr Ala Ile Ser Ser Ser Leu Ile Ser Phe Tyr Ile
 210 215 220

Pro Val Ala Ile Met Ile Val Thr Tyr Thr Arg Ile Tyr Arg Ile Ala
 225 230 235 240

Gln Ile Gln Ile Arg Arg Ile Ser Ser Leu Glu Arg Ala Ala Glu His
 245 250 255

Ala Gln Ser Cys Arg Thr Asn Arg Leu Glu Cys Gln His His Asn Thr
 260 265 270

Leu Lys Thr Ser Ile Lys Arg Glu Thr Lys Val Phe Lys Thr Leu Ser
 275 280 285

Val Ile Met Gly Val Phe Val Cys Cys Trp Leu Pro Phe Phe Ile Leu
 290 295 300

Asn Cys Ile Val Pro Phe Cys Asp Arg Pro Pro Thr Asp His Thr Ala
 305 310 315 320

Gly Leu Pro Cys Val Ser Asp Thr Thr Phe Asp Val Phe Val Trp Phe
 325 330 335

Gly Trp Thr Asn Ser Ser Leu Asn Pro Ile Ile Tyr Ala Phe Asn Ala
 340 345 350
 Asp Phe Arg Lys Ala Phe Ala Ser Leu Leu Gly Cys Arg Asn Phe Cys
 355 360 365
 Ser Arg Thr Pro Val Glu Thr Val Asn Ile Ser Asn Glu Leu Val Ser
 370 375 380
 Tyr Asn Gln Asp Thr Leu Phe His Lys Glu Ile Val Thr Ala Tyr Val
 385 390 395 400
 Asn Met Ile Pro Asn Val Val Asp Cys Ile Asp Asp Asn Glu Asp Thr
 405 410 415
 Phe Asp Arg Ile Ser Gln Phe Ser His Asn Asn Glu Ile Ala Thr Asp
 420 425 430
 Ser Val Cys Asp Leu Asp Asp Cys Glu Ala Asp Ile Cys Leu Asp Arg
 435 440 445
 Leu Ala Pro Phe Thr Pro Asn Gly Leu His
 450 455

<210> 52
 <211> 879
 <212> PRT
 <213> Rattus norvegicus

<400> 52
 Met Lys Met Leu Thr Arg Leu Gln Ile Leu Met Leu Ala Leu Phe Ser
 1 5 10 15
 Lys Gly Phe Leu Leu Ser Leu Gly Asp His Asn Phe Met Arg Arg Glu
 20 25 30
 Ile Lys Ile Glu Gly Asp Leu Val Leu Gly Gly Leu Phe Pro Ile Asn
 35 40 45
 Glu Lys Gly Thr Gly Thr Glu Glu Cys Gly Arg Ile Asn Glu Asp Arg
 50 55 60
 Gly Ile Gln Arg Leu Glu Ala Met Leu Phe Ala Ile Asp Glu Ile Asn
 65 70 75 80
 Lys Asp Asn Tyr Leu Leu Pro Gly Val Lys Leu Gly Val His Ile Leu
 85 90 95
 Asp Thr Cys Ser Arg Asp Thr Tyr Ala Leu Glu Gln Ser Leu Glu Phe
 100 105 110
 Val Arg Ala Ser Leu Thr Lys Val Asp Glu Ala Glu Tyr Met Cys Pro
 115 120 125
 Asp Gly Ser Tyr Ala Ile Gln Glu Asn Ile Pro Leu Leu Ile Ala Gly
 130 135 140

Val	Ile	Gly	Gly	Ser	Tyr	Ser	Ser	Val	Ser	Ile	Gln	Val	Ala	Asn	Leu	
145					150					155					160	
Leu	Arg	Leu	Phe	Gln	Ile	Pro	Gln	Ile	Ser	Tyr	Ala	Ser	Thr	Ser	Ala	
				165					170					175		
Lys	Leu	Ser	Asp	Lys	Ser	Arg	Tyr	Asp	Tyr	Phe	Ala	Arg	Thr	Val	Pro	
			180					185					190			
Pro	Asp	Phe	Tyr	Gln	Ala	Lys	Ala	Met	Ala	Glu	Ile	Leu	Arg	Phe	Phe	
		195					200					205				
Asn	Trp	Thr	Tyr	Val	Ser	Thr	Val	Ala	Ser	Glu	Gly	Asp	Tyr	Gly	Glu	
	210					215					220					
Thr	Gly	Ile	Glu	Ala	Phe	Glu	Gln	Glu	Ala	Arg	Leu	Arg	Asn	Ile	Cys	
225					230					235					240	
Ile	Ala	Thr	Ala	Glu	Lys	Val	Gly	Arg	Ser	Asn	Ile	Arg	Lys	Ser	Tyr	
				245					250					255		
Asp	Ser	Val	Ile	Arg	Glu	Leu	Leu	Gln	Lys	Pro	Asn	Ala	Arg	Val	Val	
			260					265					270			
Val	Leu	Phe	Met	Arg	Ser	Asp	Asp	Ser	Arg	Glu	Leu	Ile	Ala	Ala	Ala	
		275					280					285				
Asn	Arg	Val	Asn	Ala	Ser	Phe	Thr	Trp	Val	Ala	Ser	Asp	Gly	Trp	Gly	
	290					295					300					
Ala	Gln	Glu	Ser	Ile	Val	Lys	Gly	Ser	Glu	His	Val	Ala	Tyr	Gly	Ala	
305					310					315					320	
Ile	Thr	Leu	Glu	Leu	Ala	Ser	His	Pro	Val	Arg	Gln	Phe	Asp	Arg	Tyr	
				325					330					335		
Phe	Gln	Ser	Leu	Asn	Pro	Tyr	Asn	Asn	His	Arg	Asn	Pro	Trp	Phe	Arg	
			340					345					350			
Asp	Phe	Trp	Glu	Gln	Lys	Phe	Gln	Cys	Ser	Leu	Gln	Asn	Lys	Arg	Asn	
		355					360					365				
His	Arg	Gln	Val	Cys	Asp	Lys	His	Leu	Ala	Ile	Asp	Ser	Ser	Asn	Tyr	
					370		375				380					
Glu	Gln	Glu	Ser	Lys	Ile	Met	Phe	Val	Val	Asn	Ala	Val	Tyr	Ala	Met	
385					390					395					400	
Ala	His	Ala	Leu	His	Lys	Met	Gln	Arg	Thr	Leu	Cys	Pro	Asn	Thr	Thr	
				405					410					415		
Lys	Leu	Cys	Asp	Ala	Met	Lys	Ile	Leu	Asp	Gly	Lys	Lys	Leu	Tyr	Lys	
			420					425					430			
Glu	Tyr	Leu	Leu	Lys	Ile	Asn	Phe	Thr	Ala	Pro	Phe	Asn	Pro	Asn	Lys	
		435					440					445				

Gly Ala Asp Ser Ile Val Lys Phe Asp Thr Phe Gly Asp Gly Met Gly
 450 455 460
 Arg Tyr Asn Val Phe Asn Leu Gln Gln Thr Gly Gly Lys Tyr Ser Tyr
 465 470 475 480
 Leu Lys Val Gly His Trp Ala Glu Thr Leu Ser Leu Asp Val Asp Ser
 485 490 495
 Ile His Trp Ser Arg Asn Ser Val Pro Thr Ser Gln Cys Ser Asp Pro
 500 505 510
 Cys Ala Pro Asn Glu Met Lys Asn Met Gln Pro Gly Asp Val Cys Cys
 515 520 525
 Trp Ile Cys Ile Pro Cys Glu Pro Tyr Glu Tyr Leu Val Asp Glu Phe
 530 535 540
 Thr Cys Met Asp Cys Gly Pro Gly Gln Trp Pro Thr Ala Asp Leu Ser
 545 550 555 560
 Gly Cys Tyr Asn Leu Pro Glu Asp Tyr Ile Lys Trp Glu Asp Ala Trp
 565 570 575
 Ala Ile Gly Pro Val Thr Ile Ala Cys Leu Gly Phe Leu Cys Thr Cys
 580 585 590
 Ile Val Ile Thr Val Phe Ile Lys His Asn Asn Thr Pro Leu Val Lys
 595 600 605
 Ala Ser Gly Arg Glu Leu Cys Tyr Ile Leu Leu Phe Gly Val Ser Leu
 610 615 620
 Ser Tyr Cys Met Thr Phe Phe Phe Ile Ala Lys Pro Ser Pro Val Ile
 625 630 635 640
 Cys Ala Leu Arg Arg Leu Gly Leu Gly Thr Ser Phe Ala Ile Cys Tyr
 645 650 655
 Ser Ala Leu Leu Thr Lys Thr Asn Cys Ile Ala Arg Ile Phe Asp Gly
 660 665 670
 Val Lys Asn Gly Ala Gln Arg Pro Lys Phe Ile Ser Pro Ser Ser Gln
 675 680 685
 Val Phe Ile Cys Leu Gly Leu Ile Leu Val Gln Ile Val Met Val Ser
 690 695 700
 Val Trp Leu Ile Leu Glu Thr Pro Gly Thr Arg Arg Tyr Thr Leu Pro
 705 710 715 720
 Glu Lys Arg Glu Thr Val Ile Leu Lys Cys Asn Val Lys Asp Ser Ser
 725 730 735
 Met Leu Ile Ser Leu Thr Tyr Asp Val Val Leu Val Ile Leu Cys Thr
 740 745 750

Val Tyr Ala Phe Lys Thr Arg Lys Cys Pro Glu Asn Phe Asn Glu Ala
 755 760 765
 Lys Phe Ile Gly Phe Thr Met Tyr Thr Thr Cys Ile Ile Trp Leu Ala
 770 775 780
 Phe Leu Pro Ile Phe Tyr Val Thr Ser Ser Asp Tyr Arg Val Gln Thr
 785 790 795 800
 Thr Thr Met Cys Ile Ser Val Ser Leu Ser Gly Phe Val Val Leu Gly
 805 810 815
 Cys Leu Phe Ala Pro Lys Val His Ile Val Leu Phe Gln Pro Gln Lys
 820 825 830
 Asn Val Val Thr His Arg Leu His Leu Asn Arg Phe Ser Val Ser Gly
 835 840 845
 Thr Ala Thr Thr Tyr Ser Gln Ser Ser Ala Ser Thr Tyr Val Pro Thr
 850 855 860
 Val Cys Asn Gly Arg Glu Val Leu Asp Ser Thr Thr Ser Ser Leu
 865 870 875

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 <212> PRT
 <213> Mus musculus

<400> 53
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 1 5 10 15
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 20 25 30
 Ile Lys Ile Glu Gly Asp Leu Val Leu Gly Gly Leu Phe Pro Ile Asn
 35 40 45
 Glu Lys Gly Thr Gly Thr Glu Glu Cys Gly Arg Ile Asn Glu Asp Arg
 50 55 60
 Gly Ile Gln Arg Leu Glu Ala Met Leu Phe Ala Ile Asp Glu Ile Asn
 65 70 75 80
 Lys Asp Asn Tyr Leu Leu Pro Gly Val Lys Leu Gly Val His Ile Leu
 85 90 95
 Asp Thr Cys Ser Arg Asp Thr Tyr Ala Leu Glu Gln Ser Leu Glu Phe
 100 105 110
 Val Arg Ala Ser Leu Thr Lys Val Asp Glu Ala Glu Tyr Met Cys Pro
 115 120 125
 Asp Gly Ser Tyr Ala Ile Gln Glu Asn Ile Pro Leu Leu Ile Ala Gly

130	135	140
Val Ile Gly Gly Ser Tyr Ser Ser Val Ser Ile Gln Val Ala Asn Leu 145 150 155 160		
Leu Arg Leu Phe Gln Ile Pro Gln Ile Ser Tyr Ala Ser Thr Ser Ala 165 170 175		
Lys Leu Ser Asp Lys Ser Arg Tyr Asp Tyr Phe Ala Arg Thr Val Pro 180 185 190		
Pro Asp Phe Tyr Gln Ala Lys Ala Met Ala Glu Ile Leu Arg Tyr Phe 195 200 205		
Asn Trp Thr Tyr Val Ser Thr Val Ala Ser Glu Gly Asp Tyr Gly Glu 210 215 220		
Thr Gly Ile Glu Ala Phe Glu Gln Glu Ala Arg Leu Arg Asn Ile Cys 225 230 235 240		
Ile Ala Thr Ala Glu Lys Val Gly Arg Ser Asn Ile Arg Lys Ser Tyr 245 250 255		
Asp Ser Val Ile Arg Glu Leu Leu Gln Lys Pro Asn Ala Arg Val Val 260 265 270		
Val Leu Phe Met Arg Ser Asp Asp Ser Arg Glu Leu Ile Ala Ala Ala 275 280 285		
Ser Arg Val Asn Ala Ser Phe Thr Trp Val Ala Ser Asp Gly Trp Gly 290 295 300		
Ala Gln Glu Ser Ile Val Lys Gly Ser Glu His Val Ala Tyr Gly Ala 305 310 315 320		
Ile Thr Leu Glu Leu Ala Ser His Pro Val Arg Gln Phe Asp Arg Tyr 325 330 335		
Phe Gln Ser Leu Asn Pro Tyr Asn Asn His Arg Asn Pro Trp Phe Arg 340 345 350		
Asp Phe Trp Glu Gln Lys Phe Gln Cys Ser Leu Gln Asn Lys Arg Asn 355 360 365		
His Arg Gln Ile Cys Asp Lys His Leu Ala Ile Asp Ser Ser Asn Tyr 370 375 380		
Glu Gln Glu Ser Lys Ile Met Phe Val Val Asn Ala Val Tyr Ala Met 385 390 395 400		
Ala His Ala Leu His Lys Met Gln Arg Thr Leu Cys Pro Asn Thr Thr 405 410 415		
Lys Leu Cys Asp Ala Met Lys Ile Leu Asp Gly Lys Lys Leu Tyr Lys 420 425 430		
Asp Tyr Leu Leu Lys Ile Asn Phe Thr Ala Pro Phe Asn Pro Asn Lys		

435					440					445					
Gly	Ala	Asp	Ser	Ile	Val	Lys	Phe	Asp	Thr	Tyr	Gly	Asp	Gly	Met	Gly
450						455					460				
Arg	Tyr	Asn	Val	Phe	Asn	Phe	Gln	His	Ile	Gly	Gly	Lys	Tyr	Ser	Tyr
465					470					475					480
Leu	Lys	Val	Gly	His	Trp	Ala	Glu	Thr	Leu	Tyr	Leu	Asp	Val	Asp	Ser
				485					490					495	
Ile	His	Trp	Ser	Arg	Asn	Ser	Val	Pro	Thr	Ser	Gln	Cys	Ser	Asp	Pro
			500					505					510		
Cys	Ala	Pro	Asn	Glu	Met	Lys	Asn	Met	Gln	Pro	Gly	Asp	Val	Cys	Cys
			515				520					525			
Trp	Ile	Cys	Ile	Pro	Cys	Glu	Pro	Tyr	Glu	Tyr	Leu	Val	Asp	Glu	Phe
	530					535					540				
Thr	Cys	Met	Asp	Cys	Gly	Pro	Gly	Gln	Trp	Pro	Thr	Ala	Asp	Leu	Ser
545					550					555					560
Gly	Cys	Tyr	Asn	Leu	Pro	Glu	Asp	Tyr	Ile	Arg	Trp	Glu	Asp	Ala	Trp
			565						570					575	
Ala	Ile	Gly	Pro	Val	Thr	Ile	Ala	Cys	Leu	Gly	Phe	Met	Cys	Thr	Cys
			580					585					590		
Ile	Val	Ile	Thr	Val	Phe	Ile	Lys	His	Asn	Asn	Thr	Pro	Leu	Val	Lys
		595					600					605			
Ala	Ser	Gly	Arg	Glu	Leu	Cys	Tyr	Ile	Leu	Leu	Phe	Gly	Val	Ser	Leu
		610				615					620				
Ser	Tyr	Cys	Met	Thr	Phe	Phe	Phe	Ile	Ala	Lys	Pro	Ser	Pro	Val	Ile
625					630					635					640
Cys	Ala	Leu	Arg	Arg	Leu	Gly	Leu	Gly	Thr	Ser	Phe	Ala	Ile	Cys	Tyr
			645						650					655	
Ser	Ala	Leu	Leu	Thr	Lys	Thr	Asn	Cys	Ile	Ala	Arg	Ile	Phe	Asp	Gly
			660					665					670		
Val	Lys	Asn	Gly	Ala	Gln	Arg	Pro	Lys	Phe	Ile	Ser	Pro	Ser	Ser	Gln
		675					680					685			
Val	Phe	Ile	Cys	Leu	Gly	Leu	Ile	Leu	Val	Gln	Ile	Val	Met	Val	Ser
	690					695					700				
Val	Trp	Leu	Ile	Leu	Glu	Thr	Pro	Gly	Thr	Arg	Arg	Tyr	Thr	Leu	Pro
705					710					715					720
Glu	Lys	Arg	Glu	Thr	Val	Ile	Leu	Lys	Cys	Asn	Val	Lys	Asp	Ser	Ser
			725						730					735	
Met	Leu	Ile	Ser	Leu	Thr	Tyr	Asp	Val	Val	Leu	Val	Ile	Leu	Cys	Thr

740					745					750					
Val	Tyr	Ala	Phe	Lys	Thr	Arg	Lys	Cys	Pro	Glu	Asn	Phe	Asn	Glu	Ala
755					760					765					
Lys	Phe	Ile	Gly	Phe	Thr	Met	Tyr	Thr	Thr	Cys	Ile	Ile	Trp	Leu	Ala
770					775					780					
Phe	Leu	Pro	Ile	Phe	Tyr	Val	Thr	Ser	Ser	Asp	Tyr	Arg	Val	Gln	Thr
785					790					795					
Thr	Thr	Met	Cys	Ile	Ser	Val	Ser	Leu	Ser	Gly	Phe	Val	Val	Leu	Gly
805					810					815					
Cys	Leu	Phe	Ala	Pro	Lys	Val	His	Ile	Val	Leu	Phe	Gln	Pro	Gln	Lys
820					825					830					
Asn	Val	Val	Thr	His	Arg	Leu	His	Leu	Asn	Arg	Phe	Ser	Val	Ser	Gly
835					840					845					
Thr	Ala	Thr	Thr	Tyr	Ser	Gln	Ser	Ser	Ala	Ser	Thr	Tyr	Val	Pro	Thr
850					855					860					
Val	Cys	Asn	Gly	Arg	Glu	Val	Leu	Asp	Ser	Thr	Thr	Ser	Ser	Leu	
865					870					875					

<210> 54

<211> 879

<212> PRT

<213> Mus musculus

<400> 54

Met	Lys	Met	Leu	Thr	Arg	Leu	Gln	Val	Leu	Met	Leu	Ala	Leu	Phe	Ser
1				5					10					15	
Lys	Gly	Phe	Leu	Val	Ser	Leu	Gly	Asp	His	Asn	Phe	Met	Arg	Arg	Glu
			20					25					30		
Ile	Lys	Ile	Glu	Gly	Asp	Leu	Val	Leu	Gly	Gly	Leu	Phe	Pro	Ile	Asn
		35					40					45			
Glu	Lys	Gly	Thr	Gly	Thr	Glu	Glu	Cys	Arg	Gly	Ile	Asn	Glu	Asp	Arg
		50				55					60				
Gly	Ile	Gln	Arg	Leu	Glu	Ala	Met	Leu	Phe	Ala	Ile	Asp	Glu	Ile	Asn
65				70						75					80
Lys	Asp	Asn	Tyr	Leu	Leu	Pro	Gly	Val	Lys	Leu	Gly	Val	His	Ile	Leu
				85					90					95	
Asp	Thr	Cys	Ser	Arg	Asp	Thr	Tyr	Ala	Leu	Glu	Gln	Ser	Leu	Glu	Phe
			100					105					110		
Val	Arg	Ala	Ser	Leu	Thr	Lys	Val	Asp	Glu	Ala	Glu	Tyr	Met	Cys	Pro
		115					120					125			

Asp	Gly	Ser	Tyr	Ala	Ile	Gln	Glu	Asn	Ile	Pro	Leu	Leu	Ile	Ala	Gly	130	135	140
Val	Ile	Gly	Gly	Ser	Tyr	Ser	Ser	Val	Ser	Ile	Gln	Val	Ala	Asn	Leu	145	150	155
Leu	Arg	Leu	Phe	Gln	Ile	Pro	Gln	Ile	Ser	Tyr	Ala	Ser	Thr	Ser	Ala	165	170	175
Lys	Leu	Ser	Asp	Lys	Ser	Arg	Tyr	Asp	Tyr	Phe	Ala	Arg	Thr	Val	Pro	180	185	190
Pro	Asp	Phe	Tyr	Gln	Ala	Lys	Ala	Met	Ala	Glu	Ile	Leu	Arg	Tyr	Phe	195	200	205
Asn	Trp	Thr	Tyr	Val	Ser	Thr	Val	Ala	Ser	Glu	Gly	Asp	Tyr	Gly	Glu	210	215	220
Thr	Gly	Ile	Glu	Ala	Phe	Glu	Gln	Glu	Ala	Arg	Leu	Arg	Asn	Ile	Cys	225	230	235
Ile	Ala	Thr	Ala	Glu	Lys	Val	Gly	Arg	Ser	Asn	Ile	Arg	Lys	Ser	Tyr	245	250	255
Asp	Ser	Val	Ile	Arg	Glu	Leu	Leu	Gln	Lys	Pro	Asn	Ala	Arg	Val	Val	260	265	270
Val	Leu	Phe	Met	Arg	Ser	Asp	Asp	Ser	Arg	Glu	Leu	Ile	Ala	Ala	Ala	275	280	285
Ser	Arg	Val	Asn	Ala	Ser	Phe	Thr	Trp	Val	Ala	Ser	Asp	Gly	Trp	Gly	290	295	300
Ala	Gln	Glu	Ser	Ile	Val	Lys	Gly	Ser	Glu	His	Val	Ala	Tyr	Gly	Ala	305	310	315
Ile	Thr	Leu	Glu	Leu	Ala	Ser	His	Pro	Val	Arg	Gln	Phe	Asp	Arg	Tyr	325	330	335
Phe	Gln	Ser	Leu	Asn	Pro	Tyr	Asn	Asn	His	Arg	Asn	Pro	Trp	Phe	Arg	340	345	350
Asp	Phe	Trp	Glu	Gln	Lys	Phe	Gln	Cys	Ser	Leu	Gln	Asn	Lys	Arg	Asn	355	360	365
His	Arg	Gln	Ile	Cys	Asp	Lys	His	Leu	Ala	Ile	Asp	Ser	Ser	Asn	Tyr	370	375	380
Glu	Gln	Glu	Ser	Lys	Ile	Met	Phe	Val	Val	Asn	Ala	Val	Tyr	Ala	Met	385	390	395
Ala	His	Ala	Leu	His	Lys	Met	Gln	Arg	Thr	Leu	Cys	Pro	Asn	Thr	Thr	405	410	415
Lys	Leu	Cys	Asp	Ala	Met	Lys	Ile	Leu	Asp	Gly	Lys	Lys	Leu	Tyr	Lys	420	425	430

Asp Tyr Leu Leu Lys Ile Asn Phe Thr Ala Pro Phe Asn Pro Asn Lys
 435 440 445
 Gly Ala Asp Ser Ile Val Lys Phe Asp Thr Tyr Gly Asp Gly Met Gly
 450 455 460
 Arg Tyr Asn Val Phe Asn Phe Gln His Ile Gly Gly Lys Tyr Ser Tyr
 465 470 475 480
 Leu Lys Val Gly His Trp Ala Glu Thr Leu Tyr Leu Asp Val Asp Ser
 485 490 495
 Ile His Trp Ser Arg Asn Ser Val Pro Thr Ser Gln Cys Ser Asp Pro
 500 505 510
 Cys Ala Pro Asn Glu Met Lys Asn Met Gln Pro Gly Asp Val Cys Cys
 515 520 525
 Trp Ile Cys Ile Pro Cys Glu Pro Tyr Glu Tyr Leu Val Asp Glu Phe
 530 535 540
 Thr Cys Met Asp Cys Gly Pro Gly Gln Trp Pro Thr Ala Asp Leu Ser
 545 550 555 560
 Gly Cys Tyr Asn Leu Pro Glu Asp Tyr Ile Arg Trp Glu Asp Ala Trp
 565 570 575
 Ala Ile Gly Pro Val Thr Ile Ala Cys Leu Gly Phe Met Cys Thr Cys
 580 585 590
 Ile Val Ile Thr Val Phe Ile Lys His Asn Asn Thr Pro Leu Val Lys
 595 600 605
 Ala Ser Gly Arg Glu Leu Cys Tyr Ile Leu Leu Phe Gly Val Ser Leu
 610 615 620
 Ser Tyr Cys Met Thr Phe Phe Phe Ile Ala Lys Pro Ser Pro Val Ile
 625 630 635 640
 Cys Ala Leu Arg Arg Leu Gly Leu Gly Thr Ser Phe Ala Ile Cys Tyr
 645 650 655
 Ser Ala Leu Leu Thr Lys Thr Asn Cys Ile Ala Arg Ile Phe Asp Gly
 660 665 670
 Val Lys Asn Gly Ala Gln Arg Pro Lys Phe Ile Ser Pro Ser Ser Gln
 675 680 685
 Val Phe Ile Cys Leu Gly Leu Ile Leu Val Gln Ile Val Met Val Ser
 690 695 700
 Val Trp Leu Ile Leu Glu Thr Pro Gly Thr Arg Arg Tyr Thr Leu Pro
 705 710 715 720
 Glu Lys Arg Glu Thr Val Ile Leu Lys Cys Asn Val Lys Asp Ser Ser
 725 730 735

Met Leu Ile Ser Leu Thr Tyr Asp Val Val Leu Val Ile Leu Cys Thr
740 745 750

Val Tyr Ala Phe Lys Thr Arg Lys Cys Pro Glu Asn Phe Asn Glu Ala
755 760 765

Lys Phe Ile Gly Phe Thr Met Tyr Thr Thr Cys Ile Ile Trp Leu Ala
770 775 780

Phe Leu Pro Ile Phe Tyr Val Thr Ser Ser Asp Tyr Arg Val Gln Thr
785 790 795 800

Thr Thr Met Cys Ile Ser Val Ser Leu Ser Gly Phe Val Val Leu Gly
805 810 815

Cys Leu Phe Ala Pro Lys Val His Ile Val Leu Phe Gln Pro Gln Lys
820 825 830

Asn Val Val Thr His Arg Leu His Leu Asn Arg Phe Ser Val Ser Gly
835 840 845

Thr Ala Thr Thr Tyr Ser Gln Ser Ser Ala Ser Thr Tyr Val Pro Thr
850 855 860

Val Cys Asn Gly Arg Glu Val Leu Asp Ser Thr Thr Ser Ser Leu
865 870 875

<210> 55

<211> 442

<212> PRT

<213> Homo sapiens

<400> 55

Met Gly Leu Ala Met Glu His Gly Gly Ser Tyr Ala Arg Ala Gly Gly
1 5 10 15

Ser Ser Arg Gly Cys Trp Tyr Tyr Leu Arg Tyr Phe Phe Leu Phe Val
20 25 30

Ser Leu Ile Gln Phe Leu Ile Ile Leu Gly Leu Val Leu Phe Met Val
35 40 45

Tyr Gly Asn Val His Val Ser Thr Glu Ser Asn Leu Gln Ala Thr Glu
50 55 60

Arg Arg Ala Glu Gly Leu Tyr Ser Gln Leu Leu Gly Leu Thr Ala Ser
65 70 75 80

Gln Ser Asn Leu Thr Lys Glu Leu Asn Phe Thr Thr Arg Ala Lys Asp
85 90 95

Ala Ile Met Gln Met Trp Leu Asn Ala Arg Arg Asp Leu Asp Arg Ile
100 105 110

Asn Ala Ser Phe Arg Gln Cys Gln Gly Asp Arg Val Ile Tyr Thr Asn
115 120 125

Asn His Arg Tyr Met Ala Ala Ile Ile Leu Ser Glu Lys Gln Cys Arg
 130 135 140

Asp Gln Phe Lys Asp Met Asn Lys Ser Cys Asp Ala Leu Leu Phe Met
 145 150 155 160

Leu Asn Gln Lys Val Lys Thr Leu Glu Val Glu Ile Ala Lys Glu Lys
 165 170 175

Thr Ile Cys Thr Lys Asp Lys Glu Ser Val Leu Leu Asn Lys Arg Val
 180 185 190

Ala Glu Glu Gln Leu Val Glu Cys Val Lys Thr Arg Glu Leu Gln His
 195 200 205

Gln Glu Arg Gln Leu Ala Lys Glu Gln Leu Gln Lys Val Gln Ala Leu
 210 215 220

Cys Leu Pro Leu Asp Lys Asp Lys Phe Glu Met Asp Leu Arg Asn Leu
 225 230 235 240

Trp Arg Asp Ser Ile Ile Pro Arg Ser Leu Asp Asn Leu Gly Tyr Asn
 245 250 255

Leu Tyr His Pro Leu Gly Ser Glu Leu Ala Ser Ile Arg Arg Ala Cys
 260 265 270

Asp His Met Pro Ser Leu Met Ser Ser Lys Val Glu Glu Leu Ala Arg
 275 280 285

Ser Leu Arg Ala Asp Ile Glu Arg Val Ala Arg Glu Asn Ser Asp Leu
 290 295 300

Gln Arg Gln Lys Leu Glu Ala Gln Gln Gly Leu Arg Ala Ser Gln Glu
 305 310 315 320

Ala Lys Gln Lys Val Glu Lys Glu Ala Gln Ala Arg Glu Ala Lys Leu
 325 330 335

Gln Ala Glu Cys Ser Arg Gln Thr Gln Leu Ala Leu Glu Glu Lys Ala
 340 345 350

Val Leu Arg Lys Glu Arg Asp Asn Leu Ala Lys Glu Leu Glu Glu Lys
 355 360 365

Lys Arg Glu Ala Glu Gln Leu Arg Met Glu Leu Ala Ile Arg Asn Ser
 370 375 380

Ala Leu Asp Thr Cys Ile Lys Thr Lys Ser Gln Pro Met Met Pro Val
 385 390 395 400

Ser Arg Pro Met Gly Pro Val Pro Asn Pro Gln Pro Ile Asp Pro Ala
 405 410 415

Ser Leu Glu Glu Phe Lys Arg Lys Ile Leu Glu Ser Gln Arg Pro Pro
 420 425 430

Ala Gly Ile Pro Val Ala Pro Ser Ser Gly
 435 440

<210> 56
 <211> 442
 <212> PRT
 <213> Homo sapiens

<400> 56
 Met Gly Leu Ala Met Glu His Gly Gly Ser Tyr Ala Arg Ala Gly Gly
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 Ser Ser Arg Gly Cys Trp Tyr Tyr Leu Arg Tyr Phe Phe Leu Phe Val
 20 25 30
 Ser Leu Ile Gln Phe Leu Ile Ile Leu Gly Leu Val Leu Phe Met Val
 35 40 45
 Tyr Gly Asn Val His Val Ser Thr Glu Ser Asn Leu Gln Ala Thr Glu
 50 55 60
 Arg Arg Ala Glu Gly Leu Tyr Ser Gln Leu Leu Gly Leu Thr Ala Ser
 65 70 75 80
 Gln Ser Asn Leu Thr Lys Glu Leu Asn Phe Thr Thr Arg Ala Lys Asp
 85 90 95
 Ala Ile Met Gln Met Trp Leu Asn Ala Arg Arg Asp Leu Asp Arg Ile
 100 105 110
 Asn Ala Ser Phe Arg Gln Cys Gln Gly Asp Arg Val Ile Tyr Thr Asn
 115 120 125
 Asn Gln Arg Tyr Met Ala Ala Ile Ile Leu Ser Glu Lys Gln Cys Arg
 130 135 140
 Asp Gln Phe Lys Asp Met Asn Lys Ser Cys Asp Ala Leu Leu Phe Met
 145 150 155 160
 Leu Asn Gln Lys Val Lys Thr Leu Glu Val Glu Ile Ala Lys Glu Lys
 165 170 175
 Thr Ile Cys Thr Lys Asp Lys Glu Ser Val Leu Leu Asn Lys Arg Val
 180 185 190
 Ala Glu Glu Gln Leu Val Glu Cys Val Lys Thr Arg Glu Leu Gln His
 195 200 205
 Gln Glu Arg Gln Leu Ala Lys Glu Gln Leu Gln Lys Val Gln Ala Leu
 210 215 220
 Cys Leu Pro Leu Asp Lys Asp Lys Phe Glu Met Asp Leu Arg Asn Leu
 225 230 235 240
 Trp Arg Asp Ser Ile Ile Pro Arg Ser Leu Asp Asn Leu Gly Tyr Asn

Arg Ala Asp Asn Leu Tyr Ser Gln Val Val Gly Leu Ser Ala Ala Gln
 65 70 75 80
 Ala Asn Leu Ser Lys Gln Leu Asn Ile Ser Thr Leu Val Lys Asp Thr
 85 90 95
 Val Met Gln Gln Leu Leu Thr Thr Arg Arg Glu Val Glu Arg Ile Asn
 100 105 110
 Ala Ser Phe Arg Gln Cys Gln Gly Asp Leu Ile Thr Tyr Ile Asn Tyr
 115 120 125
 Asn Arg Phe Ile Ala Ala Ile Ile Leu Ser Glu Lys Gln Cys Gln Glu
 130 135 140
 Gln Leu Lys Glu Gly Asn Lys Thr Cys Glu Ala Leu Leu Phe Lys Leu
 145 150 155 160
 Gly Glu Lys Val Lys Thr Leu Glu Met Glu Val Val Lys Glu Lys Ala
 165 170 175
 Val Cys Ser Lys Asp Lys Asp Ser Leu Leu Ala Gly Lys Arg Gln Ala
 180 185 190
 Glu Met Gln Gln Glu Ala Cys Gly Lys Ala Arg Glu Gln Gln Lys Gln
 195 200 205
 Asp Gln Gln Val Thr Glu Glu Gln Leu Arg Lys Val Gln Ser Leu Cys
 210 215 220
 Leu Pro Leu Asp Gln Glu Lys Phe Gln Ala Asp Val Leu Asn Val Trp
 225 230 235 240
 Arg Asp Ser Leu Val Tyr Arg Ser Leu Asp Asn Ile Gly Tyr His Tyr
 245 250 255
 Ser Leu Met Pro Glu Phe Ser Ser Leu Arg Arg Thr Cys Glu Ser Leu
 260 265 270
 Pro Gly Ile Met Thr Thr Lys Val Glu Glu Leu Ala Arg Gly Leu Arg
 275 280 285
 Ala Gly Ile Glu Arg Val Thr Arg Glu Asn Gly Glu Leu Arg Arg Gln
 290 295 300
 Lys Leu Glu Leu Glu Arg Ala Ile Gln Gly Glu Arg Glu Ala Arg Thr
 305 310 315 320
 Arg Ala Gly Thr Glu Ala Gln Ala Arg Glu Thr Gln Leu Arg Thr Glu
 325 330 335
 Cys Ala Arg Gln Thr Gln Leu Ala Leu Glu Glu Lys Ala Ala Leu Arg
 340 345 350
 Thr Gln Arg Asp Asp Leu Glu Arg Gln Leu Glu Ala Arg Lys Arg Glu
 355 360 365

Leu Glu Gln Leu Arg Thr Glu Val Asp Val Arg Ile Ser Ala Leu Asp
 370 375 380
 Thr Cys Val Lys Ala Lys Ser Leu Pro Ala Ile Gln Pro Arg Leu Pro
 385 390 395 400
 Gly Pro Pro Pro Asn Pro Pro Pro Ile Asp Pro Ala Ser Leu Glu Glu
 405 410 415
 Phe Lys Lys Arg Ile Leu Glu Ser Gln Arg Pro Pro Leu Val Asn Pro
 420 425 430
 Ala Val Pro Pro Ser Gly
 435

<210> 58
 <211> 438
 <212> PRT
 <213> Mus musculus

<400> 58
 Met Gly Leu Ser Met Asp Arg Ser Pro Tyr Ala Arg Thr Gly Asp Gln
 1 5 10 15
 Gln Arg Gly Cys Trp Tyr Tyr Leu Arg Tyr Phe Phe Leu Phe Val Ser
 20 25 30
 Leu Ile Gln Phe Leu Ile Ile Leu Gly Leu Val Leu Phe Met Ile Tyr
 35 40 45
 Gly Asn Val His Ala Thr Thr Glu Ser Ser Leu Arg Ala Thr Glu Ile
 50 55 60
 Arg Ala Asp Ser Leu Tyr Ser Gln Val Val Gly Leu Ser Ala Ser Gln
 65 70 75 80
 Ala Asn Leu Ser Lys Gln Leu Asn Ile Ser Leu Leu Val Lys Glu Thr
 85 90 95
 Val Met Gln Gln Leu Leu Thr Thr Arg Arg Glu Met Glu Arg Ile Asn
 100 105 110
 Ala Ser Phe Arg Gln Cys Gln Gly Asp Leu Ile Thr Tyr Ile Asn Tyr
 115 120 125
 Asn Arg Phe Ile Ala Ala Ile Ile Leu Ser Glu Lys Gln Cys Gln Glu
 130 135 140
 Gln Leu Lys Glu Val Asn Lys Thr Cys Glu Ala Leu Leu Phe Lys Leu
 145 150 155 160
 Gly Glu Lys Val Lys Thr Leu Glu Met Glu Val Ala Lys Glu Lys Ala
 165 170 175
 Val Cys Ser Lys Asp Lys Glu Ser Leu Leu Ala Gly Lys Arg Gln Thr
 180 185 190

Glu Glu Gln Leu Glu Ala Cys Gly Lys Ala Arg Glu Arg Gln Gln Gln
 195 200 205
 Glu Gln Gln Val Thr Glu Glu Asn Leu Arg Lys Val Gln Ser Leu Cys
 210 215 220
 Ile Pro Leu Asp Gln Glu Lys Phe Gln Ala Asp Val Leu Ser Ala Trp
 225 230 235 240
 Arg Asp Ser Leu Ile Tyr Arg Thr Leu Glu Thr Leu Pro Tyr His Tyr
 245 250 255
 Gln Leu Met Pro Glu Tyr Ala Ser Leu Arg Arg Thr Cys Glu Ser Leu
 260 265 270
 Pro Gly Ile Met Thr Thr Lys Ile Glu Glu Leu Ala Arg Gly Leu Arg
 275 280 285
 Ala Gly Ile Glu Arg Val Thr Arg Glu Asn Ala Glu Leu Arg Arg Gln
 290 295 300
 Lys Leu Glu Leu Glu Arg Ala Ala Gln Ala Ala Gln Glu Ala Arg Ala
 305 310 315 320
 Arg Ala Gly Thr Glu Ala Gln Ala Arg Glu Thr Gln Leu Arg Ala Glu
 325 330 335
 Cys Ala Arg Gln Thr Gln Leu Ala Leu Glu Glu Lys Ala Ala Leu Arg
 340 345 350
 Ala Gln Arg Asp Asn Leu Glu Arg Glu Leu Glu Ala Arg Lys Arg Glu
 355 360 365
 Leu Glu Gln Leu Arg Thr Glu Val Asp Val Arg Ile Ser Ala Leu Asp
 370 375 380
 Thr Cys Val Lys Ala Lys Ser Leu Pro Ala Val Pro Pro Arg Val Ser
 385 390 395 400
 Gly Pro Pro Pro Asn Pro Pro Pro Ile Asp Pro Ala Ser Leu Glu Glu
 405 410 415
 Phe Lys Lys Arg Ile Leu Glu Ser Gln Arg Leu Pro Val Val Asn Pro
 420 425 430
 Ala Ala Gln Pro Ser Gly
 435

<210> 59

<211> 438

<212> PRT

<213> Mus musculus

<400> 59

Met Gly Leu Ser Met Asp Arg Ser Pro Tyr Ala Arg Thr Gly Asp Gln

1	5	10	15
Gln Arg Gly Cys Trp Tyr Tyr Leu Arg Tyr Phe Phe Leu Phe Val Ser	20	25	30
Leu Ile Gln Phe Leu Ile Ile Leu Gly Leu Val Leu Phe Met Ile Tyr	35	40	45
Gly Asn Val His Ala Thr Thr Glu Ser Ser Leu Arg Ala Thr Glu Ile	50	55	60
Arg Ala Asp Ser Leu Tyr Ser Gln Val Val Gly Leu Ser Ala Ser Gln	65	70	75
Ala Asn Leu Ser Lys Gln Leu Asn Ile Ser Leu Leu Val Lys Glu Thr	85	90	95
Val Met Gln Gln Leu Leu Thr Thr Arg Arg Glu Met Glu Arg Ile Asn	100	105	110
Ala Ser Phe Arg Gln Cys Gln Gly Asp Leu Ile Thr Tyr Ile Asn Tyr	115	120	125
Asn Arg Phe Ile Ala Ala Ile Ile Leu Ser Glu Lys Gln Cys Gln Glu	130	135	140
Gln Leu Lys Glu Val Asn Lys Thr Cys Glu Ala Leu Leu Phe Lys Leu	145	150	155
Gly Glu Lys Val Lys Thr Leu Glu Met Glu Val Ala Lys Glu Lys Ala	165	170	175
Val Cys Ser Lys Asp Lys Glu Ser Leu Leu Ala Gly Lys Arg Gln Ala	180	185	190
Glu Glu Gln Leu Glu Ala Cys Gly Lys Ala Arg Glu Arg Gln Gln Gln	195	200	205
Glu Gln Gln Val Thr Glu Glu Asn Leu Arg Lys Val Gln Ser Leu Cys	210	215	220
Ile Pro Leu Asp Gln Glu Lys Phe Gln Ala Asp Val Leu Ser Ala Trp	225	230	235
Arg Asp Ser Leu Ile Tyr Arg Thr Leu Glu Thr Leu Pro Tyr His Tyr	245	250	255
Gln Leu Met Pro Glu Tyr Ala Ser Leu Arg Arg Thr Cys Glu Ser Leu	260	265	270
Pro Gly Ile Met Pro Pro Lys Ile Glu Glu Met Ala Arg Gly Val Arg	275	280	285
Ala Gly Ile Glu Arg Val Thr Arg Glu Asn Ala Glu Leu Arg Arg Gln	290	295	300
Lys Leu Glu Leu Glu Arg Ala Ala Gln Arg Ala Gln Glu Ala Arg Ala			

305 310 315 320
 Arg Ala Gly Thr Glu Ala Gln Ala Arg Glu Thr Gln Leu Arg Ala Glu
 325 330 335
 Cys Ala Arg Gln Thr Gln Leu Ala Leu Glu Glu Lys Ala Ala Leu Arg
 340 345 350
 Ala Gln Arg Asp Asn Leu Glu Arg Glu Leu Glu Ala Arg Lys Arg Glu
 355 360 365
 Leu Glu Gln Leu Arg Thr Glu Val Asp Val Arg Ile Ser Ala Leu Asp
 370 375 380
 Thr Cys Val Lys Ala Lys Ser Leu Pro Ala Val Pro Pro Arg Val Ser
 385 390 395 400
 Gly Pro Pro Pro Asn Pro Pro Pro Ile Asp Pro Ala Ser Leu Glu Glu
 405 410 415
 Phe Lys Lys Arg Ile Leu Glu Ser Gln Arg Leu Pro Val Val Asn Pro
 420 425 430
 Ala Ala Gln Pro Ser Gly
 435

<210> 60
 <211> 1788
 <212> PRT
 <213> Rattus norvegicus

<400> 60
 Met Leu Arg Pro Met Gln Pro Thr Ser Arg Thr Leu Gln Arg Pro Pro
 1 5 10 15
 Arg Gly Ala Leu Glu Ala Gly Gly Arg Arg Asn Cys Gln Asp Gln Val
 20 25 30
 Ala His Pro Asn Trp Asn Thr Gln Ser Val Gln Thr Pro Arg Val Arg
 35 40 45
 Arg Thr Leu Gly Ala Pro Val Pro Pro Ser Arg Lys Val Lys Ala Trp
 50 55 60
 Ala Pro Gly Thr Asp Gln Trp Pro Gly Val Ser Pro His Cys Lys Arg
 65 70 75 80
 Ser Glu Ala Glu Ala Lys Pro Ser Gly Ser Gln Thr Val Asn Leu Thr
 85 90 95
 Gly Arg Ala Asn Asp Pro Cys Asp Leu Asp Ser Arg Val Gln Ala Thr
 100 105 110
 Ser Val Lys Val Thr Val Ala Gly Phe Gln Pro Gly Gly Ala Val Glu
 115 120 125

Lys Leu Cys Gln Glu Ser Leu Gly Lys Leu Thr Thr Gly Asp Ala Cys
 130 135 140

Val Ser Thr Ser Cys Glu Leu Ala Ser Ala Leu Ser His Leu Asp Ala
 145 150 155 160

Ser His Leu Thr Glu Asn Leu Pro Lys Ala Ala Ser Glu Leu Gly Gln
 165 170 175

Gln Pro Met Thr Ser Ser Asp Leu Ile Ser Ser Pro Gly Lys Lys Gly
 180 185 190

Ala Ala His Pro Asp Pro Ser Lys Thr Ser Val Asp Thr Gly Gln Val
 195 200 205

Ser Arg Pro Glu Asn Pro Ser Gln Pro Ala Ser Pro Arg Val Thr Lys
 210 215 220

Cys Lys Ala Arg Ser Pro Val Arg Leu Pro His Glu Gly Ser Pro Ser
 225 230 235 240

Pro Gly Glu Lys Ala Ala Ala Pro Pro Asp Tyr Ser Lys Thr Arg Ser
 245 250 255

Ala Ser Glu Thr Ser Thr Pro His Asn Thr Arg Arg Val Ala Ala Leu
 260 265 270

Arg Gly Ala Gly Pro Gly Ala Glu Gly Met Thr Pro Ala Gly Ala Val
 275 280 285

Leu Pro Gly Asp Pro Leu Thr Ser Gln Glu Gln Arg Gln Gly Ala Pro
 290 295 300

Gly Asn His Ser Lys Ala Leu Glu Met Thr Gly Ile His Ala Pro Glu
 305 310 315 320

Ser Ser Gln Glu Pro Ser Leu Leu Glu Gly Ala Asp Ser Val Ser Ser
 325 330 335

Arg Ala Pro Gln Ala Ser Leu Ser Met Leu Pro Ser Thr Asp Asn Thr
 340 345 350

Lys Glu Ala Cys Gly His Val Ser Gly His Cys Cys Pro Gly Gly Ser
 355 360 365

Arg Glu Ser Pro Val Thr Asp Ile Asp Ser Phe Ile Lys Glu Leu Asp
 370 375 380

Ala Ser Ala Ala Arg Ser Pro Ser Ser Gln Thr Gly Asp Ser Gly Ser
 385 390 395 400

Gln Glu Gly Ser Ala Gln Gly His Pro Pro Ala Gly Ala Gly Gly Gly
 405 410 415

Ser Ser Cys Arg Ala Glu Pro Val Pro Gly Gly Gln Thr Ser Ser Pro
 420 425 430

Arg Arg Ala Trp Ala Ala Gly Ala Pro Ala Tyr Pro Gln Trp Ala Ser
 435 440 445
 Gln Pro Ser Val Leu Asp Ser Ile Asn Pro Asp Lys His Phe Thr Val
 450 455 460
 Asn Lys Asn Phe Leu Ser Asn Tyr Ser Arg Asn Phe Ser Ser Phe His
 465 470 475 480
 Glu Asp Ser Thr Ser Leu Ser Gly Leu Gly Asp Ser Thr Glu Pro Ser
 485 490 495
 Leu Ser Ser Met Tyr Gly Asp Ala Glu Asp Ser Ser Ser Asp Pro Glu
 500 505 510
 Ser Leu Thr Glu Ala Pro Arg Ala Ser Ala Arg Asp Gly Trp Ser Pro
 515 520 525
 Pro Arg Ser Arg Val Ser Leu His Lys Glu Asp Pro Ser Glu Ser Glu
 530 535 540
 Glu Glu Gln Ile Glu Ile Cys Ser Thr Arg Gly Cys Pro Asn Pro Pro
 545 550 555 560
 Ser Ser Pro Ala His Leu Pro Thr Gln Ala Ala Ile Cys Pro Ala Ser
 565 570 575
 Ala Lys Val Leu Ser Leu Lys Tyr Ser Thr Pro Arg Glu Ser Val Ala
 580 585 590
 Ser Pro Arg Glu Lys Ala Ala Cys Leu Pro Gly Ser Tyr Thr Ser Gly
 595 600 605
 Pro Asp Ser Ser Gln Pro Ser Ser Leu Leu Glu Met Ser Ser Gln Glu
 610 615 620
 His Glu Thr His Ala Asp Ile Ser Thr Ser Gln Asn His Arg Pro Ser
 625 630 635 640
 Cys Ala Glu Glu Thr Thr Glu Val Thr Ser Ala Ser Ser Ala Met Glu
 645 650 655
 Asn Ser Pro Leu Ser Lys Val Ala Arg His Phe His Ser Pro Pro Ile
 660 665 670
 Ile Leu Ser Ser Pro Asn Met Val Asn Gly Leu Glu His Asp Leu Leu
 675 680 685
 Asp Asp Glu Thr Leu Asn Gln Tyr Glu Thr Ser Ile Asn Ala Ala Ala
 690 695 700
 Ser Leu Ser Ser Phe Ser Val Asp Val Pro Lys Asn Gly Glu Ser Val
 705 710 715 720
 Leu Glu Asn Leu His Ile Ser Glu Ser Gln Asp Leu Asp Asp Leu Leu
 725 730 735

Gln Lys Pro Lys Met Ile Ala Arg Arg Pro Ile Met Ala Trp Phe Lys
 740 745 750
 Glu Ile Asn Lys His Asn Gln Gly Thr His Leu Arg Ser Lys Thr Glu
 755 760 765
 Lys Glu Gln Pro Leu Met Pro Ala Arg Ser Pro Asp Ser Lys Ile Gln
 770 775 780
 Met Val Ser Ser Ser Gln Lys Lys Gly Val Thr Val Pro His Ser Pro
 785 790 795 800
 Pro Gln Pro Lys Thr Asn Leu Glu Asn Lys Asp Leu Ser Lys Lys Ser
 805 810 815
 Pro Ala Glu Met Leu Leu Thr Asn Gly Gln Lys Ala Lys Cys Gly Pro
 820 825 830
 Lys Leu Lys Arg Leu Ser Leu Lys Gly Lys Ala Lys Val Asn Ser Glu
 835 840 845
 Ala Pro Ala Ala Asn Ala Val Lys Ala Gly Gly Thr Asp His Arg Lys
 850 855 860
 Pro Leu Ile Ser Pro Gln Thr Ser His Lys Thr Leu Ser Lys Ala Val
 865 870 875 880
 Ser Gln Arg Leu His Val Ala Asp His Glu Asp Pro Asp Arg Asn Thr
 885 890 895
 Thr Ala Ala Pro Arg Ser Pro Gln Cys Val Leu Glu Ser Lys Pro Pro
 900 905 910
 Leu Ala Thr Ser Gly Pro Leu Lys Pro Ser Val Ser Asp Thr Ser Ile
 915 920 925
 Arg Thr Phe Val Ser Pro Leu Thr Ser Pro Lys Pro Val Pro Glu Gln
 930 935 940
 Gly Met Trp Ser Arg Phe His Met Ala Val Leu Ser Glu Pro Asp Arg
 945 950 955 960
 Gly Cys Pro Thr Thr Pro Lys Ser Pro Lys Cys Arg Ala Glu Gly Arg
 965 970 975
 Ala Pro Arg Ala Asp Ser Gly Pro Val Ser Pro Ala Ala Ser Arg Asn
 980 985 990
 Gly Met Ser Val Ala Gly Asn Arg Gln Ser Glu Pro Arg Leu Ala Ser
 995 1000 1005
 His Val Ala Ala Asp Thr Ala Gln Pro Arg Pro Thr Gly Glu Lys Gly
 1010 1015 1020
 Gly Asn Ile Met Ala Ser Asp Arg Leu Glu Arg Thr Asn Gln Leu Lys
 1025 1030 1035 1040

Ile Val Glu Ile Ser Ala Glu Ala Val Ser Glu Thr Val Cys Gly Asn		
1045	1050	1055
Lys Pro Ala Glu Ser Asp Arg Arg Gly Gly Cys Leu Ala Gln Gly Asn		
1060	1065	1070
Cys Gln Glu Lys Ser Glu Ile Arg Leu Tyr Arg Gln Val Ala Glu Ser		
1075	1080	1085
Ser Thr Ser His Pro Ser Ser Leu Pro Ser His Ala Ser Gln Ala Glu		
1090	1095	1100
Gln Glu Met Ser Arg Ser Phe Ser Met Ala Lys Leu Ala Ser Ser Ser		
1105	1110	1115 1120
Ser Ser Leu Gln Thr Ala Ile Arg Lys Ala Glu Tyr Ser Gln Gly Lys		
1125	1130	1135
Ser Ser Leu Met Ser Asp Ser Arg Gly Val Pro Arg Asn Ser Ile Pro		
1140	1145	1150
Gly Gly Pro Ser Gly Glu Asp His Leu Tyr Phe Thr Pro Arg Pro Ala		
1155	1160	1165
Thr Arg Thr Tyr Ser Met Pro Ala Gln Phe Ser Ser His Phe Gly Arg		
1170	1175	1180
Glu Gly His Pro Pro His Ser Leu Gly Arg Ser Arg Asp Ser Gln Val		
1185	1190	1195 1200
Pro Val Thr Ser Ser Val Val Pro Glu Ala Lys Ala Ser Arg Gly Gly		
1205	1210	1215
Leu Pro Ser Leu Ala Asn Gly Gln Gly Ile Tyr Ser Val Lys Pro Leu		
1220	1225	1230
Leu Asp Thr Ser Arg Asn Leu Pro Ala Thr Asp Glu Gly Asp Ile Ile		
1235	1240	1245
Ser Val Gln Glu Thr Ser Cys Leu Val Thr Asp Lys Ile Lys Val Thr		
1250	1255	1260
Arg Arg His Tyr Cys Tyr Glu Gln Asn Trp Pro His Glu Ser Thr Ser		
1265	1270	1275 1280
Phe Phe Ser Val Lys Gln Arg Ile Lys Ser Phe Glu Asn Leu Ala Asn		
1285	1290	1295
Ala Asp Arg Pro Val Ala Lys Ser Gly Ala Ser Pro Phe Leu Ser Val		
1300	1305	1310
Ser Ser Lys Pro Pro Ile Gly Arg Arg Ser Ser Gly Ser Ile Val Ser		
1315	1320	1325
Gly Ser Leu Gly His Pro Gly Asp Ala Ala Ala Arg Leu Leu Arg Arg		
1330	1335	1340

Ser Leu Ser Ser Cys Ser Glu Asn Gln Ser Glu Ala Gly Thr Leu Leu
 1345 1350 1355 1360
 Pro Gln Met Ala Lys Ser Pro Ser Ile Met Thr Leu Thr Ile Ser Arg
 1365 1370 1375
 Gln Asn Pro Pro Glu Thr Ser Ser Lys Gly Ser Asp Ser Glu Leu Lys
 1380 1385 1390
 Lys Ser Leu Gly Pro Leu Gly Ile Pro Thr Pro Thr Met Thr Leu Ala
 1395 1400 1405
 Ser Pro Val Lys Arg Asn Lys Ser Ser Val Arg His Thr Gln Pro Ser
 1410 1415 1420
 Pro Val Ser Arg Ser Lys Leu Gln Glu Leu Arg Ala Leu Ser Met Pro
 1425 1430 1435 1440
 Asp Leu Asp Lys Leu Cys Ser Glu Asp Tyr Ser Ala Gly Pro Ser Ala
 1445 1450 1455
 Val Leu Phe Lys Thr Glu Leu Glu Ile Thr Pro Arg Arg Ser Pro Gly
 1460 1465 1470
 Pro Pro Ala Gly Gly Val Ser Cys Pro Glu Lys Gly Gly Asn Arg Ala
 1475 1480 1485
 Cys Pro Gly Gly Ser Gly Pro Lys Thr Ser Ala Ala Glu Thr Pro Ser
 1490 1495 1500
 Ser Ala Ser Asp Thr Gly Glu Ala Ala Gln Asp Leu Pro Phe Arg Arg
 1505 1510 1515 1520
 Ser Trp Ser Val Lys Leu Asp Gln Leu Leu Val Ser Ala Gly Asp Gln
 1525 1530 1535
 Gln Arg Leu Gln Ser Val Leu Ser Ser Val Gly Ser Lys Ser Thr Ile
 1540 1545 1550
 Leu Thr Leu Ile Gln Glu Ala Lys Ala Gln Ser Glu Asn Glu Glu Asp
 1555 1560 1565
 Val Cys Phe Ile Val Leu Asn Arg Lys Glu Gly Ser Gly Leu Gly Phe
 1570 1575 1580
 Ser Val Ala Gly Gly Thr Asp Val Glu Pro Lys Ser Ile Thr Val His
 1585 1590 1595 1600
 Arg Val Phe Ser Gln Gly Ala Ala Ser Gln Glu Gly Thr Met Asn Arg
 1605 1610 1615
 Gly Asp Phe Leu Leu Ser Val Asn Gly Ala Ser Leu Ala Gly Leu Ala
 1620 1625 1630
 His Gly Asn Val Leu Lys Val Leu His Gln Ala Gln Leu His Lys Asp
 1635 1640 1645

Ala Leu Val Val Ile Lys Lys Gly Met Asp Gln Pro Arg Pro Ser Ala
 1650 1655 1660

Arg Gln Glu Pro Pro Thr Ala Asn Gly Lys Gly Leu Leu Ser Arg Lys
 1665 1670 1675 1680

Thr Ile Pro Leu Glu Pro Gly Ile Gly Arg Ser Val Ala Val His Asp
 1685 1690 1695

Ala Leu Cys Val Glu Val Leu Lys Thr Ser Ala Gly Leu Gly Leu Ser
 1700 1705 1710

Leu Asp Gly Gly Lys Ser Ser Val Thr Gly Asp Gly Pro Leu Val Ile
 1715 1720 1725

Lys Arg Val Tyr Lys Gly Gly Ala Ala Glu Gln Ala Gly Ile Ile Glu
 1730 1735 1740

Ala Gly Asp Glu Ile Leu Ala Ile Asn Gly Lys Pro Leu Val Gly Leu
 1745 1750 1755 1760

Met His Phe Asp Ala Trp Asn Ile Met Lys Ser Val Pro Glu Gly Pro
 1765 1770 1775

Val Gln Leu Leu Ile Arg Lys His Arg Asn Ser Ser
 1780 1785

<210> 61
 <211> 1608
 <212> PRT
 <213> Homo sapiens

<400> 61
 Ser Ser Asp Leu Ile Ser Ser Pro Gly Lys Lys Gly Ala Ala His Pro
 1 5 10 15

Asp Pro Ser Lys Thr Ser Val Asp Thr Gly Lys Val Ser Arg Pro Glu
 20 25 30

Asn Pro Ser Gln Pro Ala Ser Pro Arg Val Ala Lys Cys Lys Ala Arg
 35 40 45

Ser Pro Val Arg Leu Pro His Glu Gly Ser Pro Ser Pro Gly Glu Lys
 50 55 60

Ala Ala Ala Pro Pro Asp Tyr Ser Lys Thr Arg Ser Ala Ser Glu Thr
 65 70 75 80

Ser Thr Pro His Asn Thr Arg Arg Val Ala Ala Leu Arg Gly Ala Gly
 85 90 95

Pro Gly Ala Glu Gly Met Thr Pro Ala Gly Ala Val Leu Pro Gly Asp
 100 105 110

Pro Leu Thr Ser Gln Glu Gln Arg Gln Gly Ala Pro Gly Asn His Ser
 115 120 125

Lys Ala Leu Glu Met Thr Gly Ile His Ala Pro Glu Ser Ser Gln Glu
 130 135 140
 Pro Ser Leu Leu Glu Gly Ala Asp Ser Val Ser Ser Arg Ala Pro Gln
 145 150 155 160
 Ala Ser Leu Ser Met Leu Pro Ser Thr Asp Asn Thr Lys Glu Ala Cys
 165 170 175
 Gly His Val Ser Gly His Cys Cys Pro Gly Gly Ser Arg Glu Ser Pro
 180 185 190
 Val Thr Asp Ile Asp Ser Phe Ile Lys Glu Leu Asp Ala Ser Ala Ala
 195 200 205
 Arg Ser Pro Ser Ser Gln Thr Gly Asp Ser Gly Ser Gln Glu Gly Ser
 210 215 220
 Ala Gln Gly His Pro Pro Ala Gly Ala Gly Gly Gly Ser Ser Cys Arg
 225 230 235 240
 Ala Glu Pro Val Pro Gly Gly Gln Thr Ser Ser Pro Arg Arg Ala Trp
 245 250 255
 Ala Ala Gly Ala Pro Ala Tyr Pro Gln Trp Ala Ser Gln Pro Ser Val
 260 265 270
 Leu Asp Ser Ile Asn Pro Asp Lys His Phe Thr Val Asn Lys Asn Phe
 275 280 285
 Leu Ser Asn Tyr Ser Arg Asn Phe Ser Ser Phe His Glu Asp Ser Thr
 290 295 300
 Ser Leu Ser Gly Leu Gly Asp Ser Thr Glu Pro Ser Leu Ser Ser Met
 305 310 315 320
 Tyr Gly Asp Ala Glu Asp Ser Ser Ser Asp Pro Glu Ser Leu Thr Glu
 325 330 335
 Ala Pro Arg Ala Ser Ala Arg Asp Gly Trp Ser Pro Pro Arg Ser Arg
 340 345 350
 Val Ser Leu His Lys Glu Asp Pro Ser Glu Ser Glu Glu Glu Gln Ile
 355 360 365
 Glu Ile Cys Ser Thr Arg Gly Cys Pro Asn Pro Pro Ser Ser Pro Ala
 370 375 380
 His Leu Pro Thr Gln Ala Ala Ile Cys Pro Ala Ser Ala Lys Val Leu
 385 390 395 400
 Ser Leu Lys Tyr Ser Thr Pro Arg Glu Ser Val Ala Ser Pro Arg Glu
 405 410 415
 Lys Val Ala Cys Leu Pro Gly Ser Tyr Thr Ser Gly Pro Asp Ser Ser
 420 425 430

Gln	Pro	Ser	Ser	Leu	Leu	Glu	Met	Ser	Ser	Gln	Glu	His	Glu	Thr	His	
		435					440					445				
Ala	Asp	Ile	Ser	Thr	Ser	Gln	Asn	His	Arg	Pro	Ser	Cys	Ala	Glu	Glu	
	450					455					460					
Thr	Thr	Glu	Val	Thr	Ser	Ala	Ser	Ser	Ala	Met	Glu	Asn	Ser	Pro	Leu	
465					470					475					480	
Ser	Lys	Val	Ala	Arg	His	Phe	His	Ser	Pro	Pro	Ile	Ile	Leu	Ser	Ser	
				485					490					495		
Pro	Asn	Met	Val	Asn	Gly	Leu	Glu	His	Asp	Leu	Leu	Asp	Asp	Glu	Thr	
			500					505					510			
Leu	Asn	Gln	Tyr	Glu	Thr	Ser	Ile	Asn	Ala	Ala	Ala	Ser	Leu	Ser	Ser	
		515					520					525				
Phe	Ser	Val	Asp	Val	Pro	Lys	Asn	Gly	Glu	Ser	Val	Leu	Glu	Asn	Leu	
	530					535					540					
His	Ile	Ser	Glu	Ser	Gln	Asp	Leu	Asp	Asp	Leu	Leu	Gln	Lys	Pro	Lys	
545					550					555					560	
Met	Ile	Ala	Arg	Arg	Pro	Ile	Met	Ala	Trp	Phe	Lys	Glu	Ile	Asn	Lys	
				565					570					575		
His	Asn	Gln	Gly	Thr	His	Leu	Arg	Ser	Lys	Thr	Glu	Lys	Glu	Gln	Pro	
			580					585					590			
Leu	Met	Pro	Ala	Arg	Ser	Pro	Asp	Ser	Lys	Ile	Gln	Met	Val	Ser	Ser	
		595					600					605				
Ser	Gln	Lys	Lys	Gly	Val	Thr	Val	Pro	His	Ser	Pro	Pro	Gln	Pro	Lys	
	610					615					620					
Thr	Asn	Leu	Glu	Asn	Lys	Asp	Leu	Ser	Lys	Lys	Ser	Pro	Ala	Glu	Met	
625					630					635					640	
Leu	Leu	Thr	Asn	Gly	Gln	Lys	Ala	Lys	Cys	Gly	Pro	Lys	Leu	Lys	Arg	
				645					650					655		
Leu	Ser	Leu	Lys	Gly	Lys	Ala	Lys	Val	Asn	Ser	Glu	Ala	Pro	Ala	Ala	
			660					665					670			
Asn	Ala	Val	Lys	Ala	Gly	Gly	Thr	Asp	His	Arg	Lys	Pro	Leu	Ile	Ser	
		675					680					685				
Pro	Gln	Thr	Ser	His	Lys	Thr	Leu	Ser	Lys	Ala	Val	Ser	Gln	Arg	Leu	
		690				695					700					
His	Val	Ala	Asp	His	Glu	Asp	Pro	Asp	Arg	Asn	Thr	Thr	Ala	Ala	Pro	
705					710					715					720	
Arg	Ser	Pro	Gln	Cys	Val	Leu	Glu	Ser	Lys	Pro	Pro	Leu	Ala	Thr	Ser	
				725					730					735		

Gly Pro Leu Lys Pro Ser Val Ser Asp Thr Ser Ile Arg Thr Phe Val
 740 745 750
 Ser Pro Leu Thr Ser Pro Lys Pro Val Pro Glu Gln Gly Met Trp Ser
 755 760 765
 Arg Phe His Met Ala Val Leu Ser Glu Pro Asp Arg Gly Cys Pro Thr
 770 775 780
 Thr Pro Lys Ser Pro Lys Cys Arg Ala Glu Gly Arg Ala Pro Arg Ala
 785 790 795 800
 Asp Ser Gly Pro Val Ser Pro Ala Ala Ser Arg Asn Gly Met Ser Val
 805 810 815
 Ala Gly Asn Arg Gln Ser Glu Pro Arg Leu Ala Ser His Val Ala Ala
 820 825 830
 Asp Thr Ala Gln Pro Arg Pro Thr Gly Glu Lys Gly Gly Asn Ile Met
 835 840 845
 Ala Ser Asp Arg Leu Glu Arg Thr Asn Gln Leu Lys Ile Val Glu Ile
 850 855 860
 Ser Ala Glu Ala Val Ser Glu Thr Val Cys Gly Asn Lys Pro Ala Glu
 865 870 875 880
 Ser Asp Arg Arg Gly Gly Cys Leu Ala Gln Gly Asn Cys Gln Glu Lys
 885 890 895
 Ser Glu Ile Arg Leu Tyr Arg Gln Val Ala Glu Ser Ser Thr Ser His
 900 905 910
 Pro Ser Ser Leu Pro Ser His Ala Ser Gln Ala Glu Gln Glu Met Ser
 915 920 925
 Arg Ser Phe Ser Met Ala Lys Leu Ala Ser Ser Ser Ser Ser Leu Gln
 930 935 940
 Thr Ala Ile Arg Lys Ala Glu Tyr Ser Gln Gly Lys Ser Ser Leu Met
 945 950 955 960
 Ser Asp Ser Arg Gly Val Pro Arg Asn Ser Ile Pro Gly Gly Pro Ser
 965 970 975
 Gly Glu Asp His Leu Tyr Phe Thr Pro Arg Pro Ala Thr Arg Thr Tyr
 980 985 990
 Ser Met Pro Ala Gln Phe Ser Ser His Phe Gly Arg Glu Gly His Pro
 995 1000 1005
 Pro His Ser Leu Gly Arg Ser Arg Asp Ser Gln Val Pro Val Thr Ser
 1010 1015 1020
 Ser Val Val Pro Glu Ala Lys Ala Ser Arg Gly Gly Leu Pro Ser Leu
 1025 1030 1035 1040

Ala Asn Gly Gln Gly Ile Tyr Ser Val Lys Pro Leu Leu Asp Thr Ser
 1045 1050 1055
 Arg Asn Leu Pro Ala Thr Asp Glu Gly Asp Ile Ile Ser Val Gln Glu
 1060 1065 1070
 Thr Ser Cys Leu Val Thr Asp Lys Ile Lys Val Thr Arg Arg His Tyr
 1075 1080 1085
 Cys Tyr Glu Gln Asn Trp Pro His Glu Ser Thr Ser Phe Phe Ser Val
 1090 1095 1100
 Lys Gln Arg Ile Lys Ser Phe Glu Asn Leu Ala Asn Ala Asp Arg Pro
 1105 1110 1115 1120
 Val Ala Lys Ser Gly Ala Ser Pro Phe Leu Ser Val Ser Ser Lys Pro
 1125 1130 1135
 Pro Ile Gly Arg Arg Ser Ser Gly Ser Ile Val Ser Gly Ser Leu Gly
 1140 1145 1150
 His Pro Gly Asp Ala Ala Ala Arg Leu Leu Arg Arg Ser Leu Ser Ser
 1155 1160 1165
 Cys Ser Glu Asn Gln Ser Glu Ala Gly Thr Leu Leu Pro Gln Met Ala
 1170 1175 1180
 Lys Ser Pro Ser Ile Met Thr Leu Thr Ile Ser Arg Gln Asn Pro Pro
 1185 1190 1195 1200
 Glu Thr Ser Ser Lys Gly Ser Asp Ser Glu Leu Lys Lys Ser Leu Gly
 1205 1210 1215
 Pro Leu Gly Ile Pro Thr Pro Thr Met Thr Leu Ala Ser Pro Val Lys
 1220 1225 1230
 Arg Asn Lys Ser Ser Val Arg His Thr Gln Pro Ser Pro Val Ser Arg
 1235 1240 1245
 Ser Lys Leu Gln Glu Leu Arg Ala Leu Ser Met Pro Asp Leu Asp Lys
 1250 1255 1260
 Leu Cys Ser Glu Asp Tyr Ser Ala Gly Pro Ser Ala Val Leu Phe Lys
 1265 1270 1275 1280
 Thr Glu Leu Glu Ile Thr Pro Arg Arg Ser Pro Gly Pro Pro Ala Gly
 1285 1290 1295
 Gly Val Ser Cys Pro Glu Lys Gly Gly Asn Arg Ala Cys Pro Gly Gly
 1300 1305 1310
 Ser Gly Pro Lys Thr Ser Ala Ala Glu Thr Pro Ser Ser Ala Ser Asp
 1315 1320 1325
 Thr Gly Glu Ala Ala Gln Asp Leu Pro Phe Arg Arg Ser Trp Ser Val
 1330 1335 1340

Asn Leu Asp Gln Leu Leu Val Ser Ala Gly Asp Gln Gln Arg Leu Gln
 1345 1350 1355 1360
 Ser Val Leu Ser Ser Val Gly Ser Lys Ser Thr Ile Leu Thr Leu Ile
 1365 1370 1375
 Gln Glu Ala Lys Ala Gln Ser Glu Asn Glu Glu Asp Val Cys Phe Ile
 1380 1385 1390
 Val Leu Asn Arg Lys Glu Gly Ser Gly Leu Gly Phe Ser Val Ala Gly
 1395 1400 1405
 Gly Thr Asp Val Glu Pro Lys Ser Ile Thr Val His Arg Val Phe Ser
 1410 1415 1420
 Gln Gly Ala Ala Ser Gln Glu Gly Thr Met Asn Arg Gly Asp Phe Leu
 1425 1430 1435 1440
 Leu Ser Val Asn Gly Ala Ser Leu Ala Gly Leu Ala His Gly Asn Val
 1445 1450 1455
 Leu Lys Val Leu His Gln Ala Gln Leu His Lys Asp Ala Leu Val Val
 1460 1465 1470
 Ile Lys Lys Gly Met Asp Gln Pro Arg Pro Ser Ala Arg Gln Glu Pro
 1475 1480 1485
 Pro Thr Ala Asn Gly Lys Gly Leu Leu Ser Arg Lys Thr Ile Pro Leu
 1490 1495 1500
 Glu Pro Gly Ile Gly Arg Ser Val Ala Val His Asp Ala Leu Cys Val
 1505 1510 1515 1520
 Glu Val Leu Lys Thr Ser Ala Gly Leu Gly Leu Ser Leu Asp Gly Gly
 1525 1530 1535
 Lys Ser Ser Val Thr Gly Asp Gly Pro Leu Val Ile Lys Arg Val Tyr
 1540 1545 1550
 Lys Gly Gly Ala Ala Glu Gln Ala Gly Ile Ile Glu Ala Gly Asp Glu
 1555 1560 1565
 Ile Leu Ala Ile Asn Gly Lys Pro Leu Val Gly Leu Met His Phe Asp
 1570 1575 1580
 Ala Trp Asn Ile Met Lys Ser Val Pro Glu Gly Pro Val Gln Leu Leu
 1585 1590 1595 1600
 Ile Arg Lys His Arg Asn Ser Ser
 1605

<210> 62

<211> 2766

<212> PRT

<213> Rattus norvegicus

<400> 62

Met	Pro	Ile	Thr	Gln	Asp	Asn	Ala	Leu	Leu	His	Leu	Pro	Leu	Leu	Tyr	1	5	10	15
Glu	Trp	Leu	Gln	Asn	Ser	Leu	Arg	Glu	Gly	Gly	Asp	Ser	Pro	Glu	Gln	20	25	30	
Arg	Leu	Cys	Gln	Ala	Ala	Ile	Gln	Lys	Leu	Gln	Glu	Tyr	Ile	Gln	Leu	35	40	45	
Asn	Leu	Ala	Val	Asp	Glu	Ser	Thr	Val	Pro	Pro	Asp	His	Ser	Pro	Pro	50	55	60	
Glu	Met	Glu	Ile	Cys	Thr	Val	Tyr	Leu	Thr	Lys	Gln	Leu	Gly	Asp	Thr	65	70	75	80
Glu	Thr	Val	Gly	Leu	Ser	Phe	Gly	Asn	Ile	Pro	Val	Phe	Gly	Asp	Tyr	85	90	95	
Gly	Glu	Lys	Arg	Arg	Gly	Gly	Lys	Lys	Arg	Lys	Thr	His	Gln	Gly	Pro	100	105	110	
Val	Leu	Asp	Val	Gly	Cys	Ile	Trp	Val	Thr	Glu	Leu	Arg	Lys	Asn	Ser	115	120	125	
Pro	Ala	Gly	Lys	Ser	Gly	Lys	Val	Arg	Leu	Arg	Asp	Glu	Ile	Leu	Ser	130	135	140	
Leu	Asn	Gly	Gln	Leu	Met	Val	Gly	Val	Asp	Val	Thr	Gly	Ala	Ser	Tyr	145	150	155	160
Leu	Ala	Glu	Gln	Cys	Trp	Asn	Gly	Gly	Phe	Ile	Tyr	Leu	Ile	Met	Leu	165	170	175	
Arg	Arg	Phe	Lys	Gln	Lys	Ala	His	Val	Thr	Tyr	Asn	Gly	Asn	Ser	Gly	180	185	190	
Asn	Ser	Ser	Glu	Pro	Gly	Glu	Thr	Pro	Thr	Leu	Glu	Leu	Gly	Asp	Gln	195	200	205	
Thr	Ser	Lys	Lys	Gly	Lys	Arg	Thr	Arg	Lys	Phe	Gly	Val	Ile	Ser	Arg	210	215	220	
Pro	Ser	Ile	Ser	Lys	Thr	Pro	Glu	Asp	Ser	Lys	Ser	Ser	Ser	Gly	Cys	225	230	235	240
Asp	Thr	Ala	Asp	Asp	Pro	Asn	Ser	Glu	Leu	Glu	Asn	Gly	Ala	Asp	Pro	245	250	255	
Glu	Leu	Gly	Asn	Gly	His	Ala	Phe	Glu	Leu	Glu	Asn	Gly	Pro	His	Ser	260	265	270	
Leu	Lys	Asp	Val	Ala	Gly	Pro	His	Leu	Glu	Arg	Ser	Glu	Ala	Asp	Ser	275	280	285	
Glu	Val	Glu	Leu	Arg	Val	Pro	Lys	Thr	Glu	Ala	Pro	Leu	Ser	Asp	Ser				

290					295					300					
Asn	Asp	Lys	Arg	Arg	Phe	Ser	Lys	Thr	Gly	Lys	Thr	Asp	Phe	Gln	Ser
305					310					315					320
Ser	Asp	Cys	Leu	Ala	Arg	Glu	Glu	Val	Gly	Arg	Ile	Trp	Lys	Met	Glu
			325						330					335	
Leu	Leu	Lys	Glu	Ser	Asp	Gly	Leu	Gly	Ile	Gln	Val	Ser	Gly	Gly	Arg
			340					345					350		
Gly	Ser	Lys	Arg	Ser	Pro	His	Ala	Ile	Val	Val	Thr	Gln	Val	Lys	Glu
		355					360					365			
Gly	Gly	Ala	Ala	His	Arg	Asp	Gly	Arg	Leu	Ser	Leu	Gly	Asp	Glu	Leu
	370					375					380				
Leu	Val	Ile	Asn	Gly	His	Leu	Leu	Val	Gly	Leu	Ser	His	Glu	Glu	Ala
385					390					395					400
Val	Ala	Ile	Leu	Arg	Ser	Ala	Thr	Gly	Met	Val	Gln	Leu	Val	Val	Ala
				405					410					415	
Ser	Lys	Met	Pro	Gly	Ser	Glu	Glu	Ser	Gln	Asp	Val	Gly	Ser	Ser	Glu
			420					425					430		
Glu	Ser	Lys	Gly	Asn	Leu	Glu	Ser	Pro	Lys	Gln	Gly	Asn	Cys	Lys	Thr
		435					440					445			
Lys	Leu	Lys	Ser	Arg	Leu	Ser	Gly	Gly	Val	His	Arg	Leu	Glu	Ser	Val
	450					455					460				
Glu	Glu	Tyr	Asn	Glu	Leu	Met	Val	Arg	Asn	Gly	Asp	Pro	Arg	Ile	Arg
465					470					475					480
Met	Leu	Glu	Val	Ser	Arg	Asp	Gly	Arg	Lys	His	Ser	Leu	Pro	Gln	Leu
				485					490					495	
Leu	Asp	Ser	Thr	Gly	Thr	Ser	Gln	Glu	Tyr	His	Ile	Val	Lys	Lys	Ser
			500					505					510		
Thr	Arg	Ser	Leu	Ser	Thr	Thr	His	Val	Glu	Ser	Pro	Trp	Arg	Leu	Ile
		515					520					525			
Arg	Pro	Ser	Val	Ile	Ser	Ile	Ile	Gly	Leu	Tyr	Lys	Glu	Lys	Gly	Lys
	530					535					540				
Gly	Leu	Gly	Phe	Ser	Ile	Ala	Gly	Gly	Arg	Asp	Cys	Ile	Arg	Gly	Gln
545					550					555					560
Met	Gly	Ile	Phe	Val	Lys	Thr	Ile	Phe	Pro	Asn	Gly	Ser	Ala	Ala	Glu
				565					570					575	
Asp	Gly	Arg	Leu	Lys	Glu	Gly	Asp	Glu	Ile	Leu	Asp	Val	Asn	Gly	Ile
			580					585					590		
Pro	Ile	Lys	Gly	Leu	Thr	Phe	Gln	Glu	Ala	Ile	His	Thr	Phe	Lys	Gln

595					600					605						
Ile	Arg	Ser	Gly	Leu	Phe	Val	Leu	Thr	Val	Arg	Thr	Lys	Leu	Leu	Ser	
610					615					620						
Pro	Ser	Leu	Thr	Pro	Cys	Ser	Thr	Pro	Thr	His	Met	Ser	Arg	Ser	Ser	
625					630					635					640	
Ser	Pro	Ser	Phe	Asn	Thr	Asn	Ser	Gly	Gly	Thr	Pro	Ala	Gly	Gly	Gly	
645					650					655						
Gln	Glu	Glu	Gly	Gly	Ser	Ser	Ser	Leu	Gly	Arg	Lys	Ala	Pro	Gly	Pro	
660					665					670						
Lys	Asp	Arg	Ile	Val	Met	Glu	Val	Thr	Leu	Asn	Lys	Glu	Pro	Arg	Val	
675					680					685						
Gly	Leu	Gly	Ile	Gly	Ala	Cys	Cys	Leu	Ala	Leu	Glu	Asn	Ser	Pro	Pro	
690					695					700						
Gly	Ile	Tyr	Ile	His	Ser	Leu	Ala	Pro	Gly	Ser	Val	Ala	Lys	Met	Glu	
705					710					715					720	
Ser	Asn	Leu	Ser	Arg	Gly	Asp	Gln	Ile	Leu	Glu	Val	Asn	Ser	Val	Asn	
725					730					735						
Val	Arg	His	Ala	Ala	Leu	Ser	Lys	Val	His	Ala	Ile	Leu	Ser	Lys	Cys	
740					745					750						
Pro	Pro	Gly	Pro	Val	Arg	Leu	Val	Ile	Gly	Arg	His	Pro	Asn	Pro	Lys	
755					760					765						
Val	Ser	Glu	Gln	Glu	Met	Asp	Glu	Val	Ile	Ala	Arg	Ser	Thr	Tyr	Gln	
770					775					780						
Glu	Ser	Arg	Glu	Ala	Asn	Ser	Ser	Pro	Gly	Leu	Gly	Thr	Pro	Leu	Lys	
785					790					795					800	
Ser	Pro	Ser	Leu	Ala	Lys	Lys	Asp	Ser	Leu	Leu	Ser	Glu	Ser	Glu	Leu	
805					810					815						
Ser	Gln	Tyr	Phe	Val	His	Asp	Gly	Gln	Gly	Ser	Leu	Ser	Asp	Phe	Val	
820					825					830						
Val	Ala	Gly	Ser	Glu	Asp	Glu	Asp	His	Pro	Gly	Ser	Gly	Tyr	Glu	Thr	
835					840					845						
Ser	Glu	Asp	Gly	Ser	Leu	Leu	Pro	Val	Pro	Ser	Ala	His	Lys	Ala	Arg	
850					855					860						
Ala	Asn	Ser	Leu	Val	Thr	Leu	Gly	Ser	Gln	Arg	Thr	Ser	Gly	Leu	Leu	
865					870					875					880	
His	Lys	Gln	Val	Thr	Val	Ala	Arg	Gln	Ala	Ser	Leu	Pro	Gly	Ser	Pro	
885					890					895						
Gln	Val	Leu	Arg	Asn	Pro	Leu	Leu	Arg	Gln	Arg	Arg	Val	Arg	Cys	Tyr	

900					905					910					
Asp	Ser	Asn	Gly	Gly	Ser	Asp	Asp	Glu	Asp	Phe	Asp	Gly	Glu	Gly	Asp
		915					920					925			
Cys	Ile	Ser	Leu	Pro	Gly	Val	Leu	Pro	Gly	Pro	Gly	Lys	Pro	Leu	Val
	930					935					940				
Glu	Asp	Asp	Thr	Arg	Pro	Ala	Leu	Thr	Thr	Ser	Ser	Lys	Ser	Ile	Asp
945						950					955				960
Val	Asn	Lys	Gln	Glu	Glu	Arg	Leu	Gln	Lys	Pro	Leu	Val	Ser	Lys	Ala
			965						970					975	
Cys	Ser	Val	Pro	Leu	Leu	Gly	Ser	Ser	Leu	Asp	Ser	Glu	His	Ser	Ile
			980						985				990		
Leu	Asn	Gly	Ala	Gly	Gly	Thr	Pro	Pro	Lys	Val	Ala	Ser	Leu	Pro	Gly
		995					1000					1005			
Ser	Gly	Glu	Thr	Pro	Lys	Asn	Gly	Pro	Arg	Gly	Ser	Gly	Arg	Lys	Glu
	1010					1015					1020				
Met	Ser	Gly	Ser	Arg	Ser	Ser	Pro	Lys	Leu	Glu	Tyr	Arg	Val	Pro	Thr
1025						1030					1035				1040
Asp	Thr	Gln	Ser	Pro	Arg	Ser	Pro	Glu	Asn	His	Thr	Ser	Pro	Pro	Gln
			1045						1050					1055	
Lys	Ser	Glu	Asn	Leu	Val	Ser	Arg	His	Lys	Pro	Val	Ala	Arg	Ile	Ser
		1060					1065						1070		
Pro	His	Tyr	Lys	Arg	Ser	Asp	Ala	Glu	Glu	Ala	Pro	Gly	Gly	Thr	Ala
	1075						1080					1085			
Asn	Gly	Pro	Cys	Ala	Gln	Asp	Leu	Lys	Val	Gln	Ala	Ser	Pro	Val	Lys
	1090					1095					1100				
Asp	Pro	Val	Thr	Ser	Arg	Gln	Pro	Gly	Gly	Thr	Ala	Glu	Lys	Glu	Leu
1105						1110					1115				1120
Arg	Gly	Asn	Pro	Thr	Pro	Gly	Asp	Ser	Ser	Val	Pro	Thr	Asn	Cys	Gly
			1125						1130					1135	
Pro	Ala	Ser	Thr	Pro	Cys	His	Pro	Asn	Ile	Gly	Leu	Pro	Thr	Glu	Asn
		1140						1145					1150		
Pro	Gln	Gly	Ala	Ala	Pro	Glu	Cys	Gly	Pro	His	Pro	Gly	Thr	Gly	Trp
	1155						1160					1165			
Asp	Gly	Ser	Ser	Glu	His	Leu	Cys	Ser	Pro	Gly	Lys	Ser	Arg	Glu	Val
	1170					1175					1180				
His	Pro	Asp	Ser	Ser	Glu	Thr	Pro	Thr	Val	Ala	Glu	Gln	Val	His	Gln
1185						1190					1195				1200
Pro	Glu	Ser	Leu	Ser	Gln	Pro	Val	Ser	Pro	Arg	Thr	Ser	Glu	Pro	Glu

1205					1210					1215						
Ser	Gln	Gly	Ile	Ser	Lys	Met	Lys	Pro	Pro	Ser	Gln	Arg	Cys	Val	Ser	
1220					1225					1230						
Pro	Arg	Glu	Lys	Ala	Ser	Thr	Pro	Pro	Asp	Ser	Ser	Arg	Ala	Trp	Ala	
1235					1240					1245						
Ala	Pro	Gly	Asp	Ser	Ser	Pro	Ser	Thr	Arg	Arg	Ile	Ala	Val	Pro	Met	
1250					1255					1260						
Ser	Thr	Gly	Ala	Ala	Pro	Ala	Thr	Ala	Ile	Pro	Gln	Ala	Ser	Leu	Val	
1265					1270					1275					1280	
Ser	Gln	Glu	Arg	Ser	Arg	Gly	Leu	Ser	Gly	Pro	Ser	Lys	Gly	Leu	Gly	
1285					1290					1295						
Thr	Lys	Glu	Leu	Cys	Ile	Pro	Lys	Ser	Leu	Lys	Asp	Gly	Ala	Leu	Leu	
1300					1305					1310						
Glu	Asp	Thr	Ala	Pro	Ala	Ser	Gly	Lys	Met	Ser	His	Ala	Ser	Ser	Pro	
1315					1320					1325						
Ser	Gly	Pro	Val	Ala	Thr	Glu	Arg	Thr	Leu	Ser	Gly	Ser	Pro	Glu	Asn	
1330					1335					1340						
Pro	Val	Thr	Asp	Ile	Asp	Asn	Phe	Ile	Glu	Glu	Ala	Ser	Glu	Ala	Arg	
1345					1350					1355					1360	
Leu	Ser	Gln	Ser	Pro	Gln	Lys	Ala	Asp	Cys	Arg	Ala	His	Gly	Asp	Thr	
1365					1370					1375						
Phe	Glu	Ser	Gln	Pro	Pro	Gly	Gly	Ala	Gly	Ser	Ser	Ser	Ser	His	His	
1380					1385					1390						
Ala	Gln	Met	Val	Arg	Ser	Asp	Gln	Thr	Ser	Ser	Pro	Arg	Lys	Thr	Gly	
1395					1400					1405						
Gly	Thr	Gly	Ser	Pro	Pro	Pro	Gln	Gln	Trp	Ala	Leu	Gln	Pro	Ser	Val	
1410					1415					1420						
Leu	Asp	Ser	Ile	His	Pro	Asp	Lys	His	Leu	Ala	Val	Asn	Lys	Thr	Phe	
1425					1430					1435					1440	
Leu	Asn	Asn	Tyr	Ser	Arg	Asn	Phe	Ser	Asn	Phe	His	Glu	Asp	Ser	Ile	
1445					1450					1455						
Ser	Leu	Ser	Gly	Pro	Gly	Gly	Ser	Ser	Glu	Pro	Ser	Pro	Ser	Ser	Met	
1460					1465					1470						
Tyr	Gly	Asn	Ala	Glu	Asp	Ser	Ser	Ser	Asp	Pro	Glu	Ser	Leu	Ala	Glu	
1475					1480					1485						
Asp	Pro	Gly	Ala	Ala	Ala	Arg	Asn	Asn	Trp	Ser	Pro	Pro	Leu	Ser	Pro	
1490					1495					1500						
Glu	Ser	Ser	Pro	Lys	Glu	Gly	Ser	Ser	Glu	Ser	Glu	Asp	Glu	Arg	Ile	

1505	1510	1515	1520
Glu Ile Cys Ser Thr Asp Gly Cys Pro Gly Thr Pro Val Thr Ala Pro	1525	1530	1535
Pro Pro Thr Gln Val Ala Leu Cys Pro Val Leu Pro Val Gln Gln Arg	1540	1545	1550
Ala Val Cys Lys Pro Val Gly Asp Ile Cys Glu Arg Ala Cys Phe Val	1555	1560	1565
Pro Gly Ala Ser Arg Thr Ser Ile Pro Asp Ser Ser Gln Pro Phe Ser	1570	1575	1580
Phe Leu Asp Val Ser Ser Glu Glu Pro Glu Thr Trp Ala Ser Ile Asn	1585	1590	1595
Ala Ser Gln Asn His Met Pro Val Cys Thr Glu Gly Ile Met Asp Val	1605	1610	1615
Thr Ser Thr Ser Ser Asn Met Gly Asp Ser Gln Ser Ser Gln Met Thr	1620	1625	1630
Arg His Cys Arg Asn Ala Pro Phe Val Leu Gly Asn Pro Asp Met Val	1635	1640	1645
Asn Asp Leu Gly Arg Asp Leu Leu Asp Glu Gly Ala Pro Lys Glu Gly	1650	1655	1660
Ala Ala Ala Ala Ser Val Met Arg Ser Val Phe Ala Leu Gly Ala Glu	1665	1670	1675
Gly Pro Lys Asn Gly Glu Ala Val Leu Ala Asp Leu His Ile Ala Glu	1685	1690	1695
Arg Gly Asn Leu Glu Asp Leu Leu Gln Lys Pro Lys Thr Ile Ser Arg	1700	1705	1710
Arg Pro Ile Leu Thr Trp Phe Lys Glu Ile Asn Lys Asp Ser Gln Gly	1715	1720	1725
Ser His Leu Arg Ser Thr Ser Glu Lys Glu Gln Ser Ser Met Leu Ala	1730	1735	1740
Leu Gly Pro Gly Ser Lys Ala Asn Met Val Asn Thr Gly His Arg Lys	1745	1750	1755
Gly Val Thr Val Pro Lys Ser Pro Pro Ser Arg Gln Lys Ser Gln Glu	1765	1770	1775
Asn Lys Asp Leu Pro Pro Lys Ser Pro Val Glu Thr Leu Gly Asn Cys	1780	1785	1790
Gln Lys Pro Lys Cys Ser Pro Lys Leu Lys Arg Leu Asn Ser Lys Gly	1795	1800	1805
Lys Ala Ser Pro Glu Val Pro Val Ala Ile Ser Thr Lys Gly Ser Arg			

1810	1815	1820
Asn Asp His Arg Lys Thr Leu Pro Ser Pro Gln Ala Ser His Lys Met		
1825	1830	1835 1840
Phe Ser Lys Ala Val Ser His Arg Leu His Ile Ala Asp Gln Glu Glu		
	1845	1850 1855
Pro Lys Asn Thr Ala Gly Asp Thr Pro Lys Pro Pro Gln Cys Val Pro		
	1860	1865 1870
Glu Ser Lys Pro Pro Gln Ala Ala Leu Gly Ser Leu Arg Thr Ser Ala		
	1875	1880 1885
Ser Asp Thr Ser Ile Arg Thr Phe Thr Ser Pro Leu Thr Ser Pro Lys		
	1890	1895 1900
Leu Leu Pro Glu Gln Gly Ala Asn Ser Arg Phe His Met Ala Val Tyr		
	1905	1910 1915 1920
Leu Glu Ser Asp Thr Ser Cys Pro Thr Thr Ser Arg Ser Pro Arg Ser		
	1925	1930 1935
Gly Pro Glu Gly Lys Ala Pro His Ala Asn Ser Gly Ser Ala Ser Pro		
	1940	1945 1950
Pro Ala Ser Arg Ala Ser Leu Ala Leu Ala Gly Ile Arg Gln Ser Lys		
	1955	1960 1965
Gln Phe Thr Pro Gly Arg Ala Asp Leu Leu Val Ser Glu Ala Thr Gln		
	1970	1975 1980
Pro Gln Gly Ile Cys Glu Lys Gly Ala Glu Lys Lys Val Ser Asp Pro		
	1985	1990 1995 2000
Pro Gln Arg Thr Asn Gln Leu Lys Ile Val Glu Ile Ser Ser Glu Arg		
	2005	2010 2015
Val Pro Lys Asn Ala Cys Gly Asp Arg Pro Pro Glu Ser Asp Arg Lys		
	2020	2025 2030
Gly Gly Phe Leu Thr Gln Asn Asn Cys Gln Glu Lys Ser Ala Ile Arg		
	2035	2040 2045
Leu Arg Gln Ser Glu Glu Ser Ser Pro Glu His Thr Pro Phe Pro Pro		
	2050	2055 2060
Ser Gln Ala Ser Gln Val Glu Arg Glu Ile Arg Trp Ser Phe Ser Met		
	2065	2070 2075 2080
Ala Lys Pro Ala Thr Ser Ser Ser Ser Ser Leu Gln Leu Pro Ala Lys		
	2085	2090 2095
Leu Pro Glu Ser Phe Gln Gly Lys Ser Ser Gln Met Pro Ala Ser Val		
	2100	2105 2110
Gly Val Pro Lys Asn Gly Val Pro Ile Gly Leu Ala Gly Glu Glu Ser		

2115	2120	2125
Pro Tyr Phe Thr Pro Arg Pro Ala Thr Arg Thr Tyr Ser Met Pro Ala 2130	2135	2140
Gln Phe Ser Ser His Phe Gly Arg Glu Gly Pro Ser Pro His Ser Pro 2145	2150	2155 2160
Ser His Ser Pro Gln Asp Pro Gln Val Pro Ala Met Gly Gly Lys Leu 2165	2170	2175
Ser Glu Lys Thr Ala Lys Gly Val Thr Asn Gly Gln Gly Val Tyr Ser 2180	2185	2190
Val Lys Pro Leu Leu Glu Thr Ser Lys Asn Leu Ser Pro Val Asp Gly 2195	2200	2205
Arg Asp Val Ser Ala Asp Pro Glu Thr Ser Cys Leu Ile Pro Asp Lys 2210	2215	2220
Val Lys Val Thr Arg Arg Gln Tyr Cys Cys Glu Gln Ser Trp Pro His 2225	2230	2235 2240
Glu Ser Thr Ser Phe Phe Ser Val Lys Gln Arg Ile Lys Ser Phe Glu 2245	2250	2255
Asn Leu Ala Asn Ser Asp Arg Pro Thr Ala Lys Cys Ala Thr Ser Pro 2260	2265	2270
Phe Leu Ser Val Ser Ser Lys Pro Pro Ile Asn Arg Arg Ser Ser Gly 2275	2280	2285
Ser Ile Pro Ser Gly Ser Pro Ser Asp Met Thr Ser Arg Ser Leu Arg 2290	2295	2300
Arg Ser Leu Ser Ser Cys Ser Glu Ser Gln Ser Glu Ala Ser Ser Leu 2305	2310	2315 2320
Leu Pro Gln Met Thr Lys Ser Pro Ser Ser Met Thr Leu Thr Val Ser 2325	2330	2335
Arg Gln Asn Pro Pro Asp Thr Ser Asn Lys Gly Pro Ser Pro Asp Pro 2340	2345	2350
Lys Lys Ser Leu Val Pro Val Gly Ile Pro Thr Ser Thr Val Ser Pro 2355	2360	2365
Ala Ser Pro Ser Lys Arg Asn Lys Ser Ser Val Arg His Ala Gln Pro 2370	2375	2380
Ser Pro Val Ser Arg Ser Lys Leu Gln Glu Arg Arg Thr Leu Ser Met 2385	2390	2395 2400
Pro Asp Leu Asp Lys Leu Cys Asn Gly Glu Asp Asp Ser Ala Ser Pro 2405	2410	2415
Gly Ala Val Leu Phe Lys Thr Gln Leu Glu Ile Thr Pro Arg Arg Ser		

2420	2425	2430
Lys Gly Ser Gln Ala Thr Ser Pro Ala Gly Ser Pro Ala Arg Gly His		
2435	2440	2445
Ala Asp Phe Asn Gly Ser Thr Phe Leu Ser Cys Pro Met Asn Gly Gly		
2450	2455	2460
Thr Arg Ala Tyr Thr Lys Gly Asn Ser Pro Pro Ala Ser Glu Pro Ala		
2465	2470	2475 2480
Ile Ala Thr Gly Ser Arg Glu Glu Gly Glu Ser Val Trp Ala Thr Pro		
2485	2490	2495
Ser Gly Lys Ser Trp Ser Val Ser Leu Asp Arg Leu Leu Ala Ser Val		
2500	2505	2510
Gly Asn Gln Gln Arg Leu Gln Gly Ile Leu Ser Leu Val Gly Ser Lys		
2515	2520	2525
Ser Pro Ile Leu Thr Leu Ile Gln Glu Ala Lys Ala Gln Ser Glu Thr		
2530	2535	2540
Lys Glu Asp Ile Cys Phe Ile Val Leu Asn Lys Lys Glu Gly Ser Gly		
2545	2550	2555 2560
Leu Gly Phe Ser Val Ala Gly Gly Ala Asp Val Glu Pro Lys Ser Val		
2565	2570	2575
Met Val His Arg Val Phe Ser Gln Gly Val Ala Ser Gln Glu Gly Thr		
2580	2585	2590
Val Ser Arg Gly Asp Phe Leu Leu Ser Val Asn Gly Thr Ser Leu Ala		
2595	2600	2605
Gly Leu Ala His Ser Glu Val Thr Lys Val Leu His Gln Ala Glu Leu		
2610	2615	2620
His Lys His Ala Leu Met Ile Ile Lys Lys Gly Asn Asp Gln Pro Gly		
2625	2630	2635 2640
Pro Ser Phe Lys Gln Glu Pro Pro Ser Ala Asn Gly Lys Gly Pro Phe		
2645	2650	2655
Pro Arg Arg Thr Leu Pro Leu Glu Pro Gly Ala Gly Arg Asn Gly Ala		
2660	2665	2670
Ala His Asp Ala Leu Cys Val Glu Val Leu Lys Thr Ser Ala Gly Leu		
2675	2680	2685
Gly Leu Ser Leu Asp Gly Gly Lys Ser Ser Val Ser Gly Glu Gly Pro		
2690	2695	2700
Leu Val Ile Lys Arg Val Tyr Lys Gly Gly Ala Ala Glu Arg Ala Gly		
2705	2710	2715 2720
Thr Ile Glu Ala Gly Asp Glu Ile Leu Ala Ile Asn Gly Lys Pro Leu		

2725	2730	2735
Val Gly Leu Val His Phe Asp Ala Trp Asn Ile Met Lys Ser Val Pro		
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Glu Gly Pro Val Gln Leu Val Ile Arg Lys His Arg Asp Ser		
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Gln Trp Leu Gln Asn Ser Leu Gln Glu Gly Gly Asp Gly Pro Glu Gln		
20	25	30
Arg Leu Cys Gln Ala Ala Ile Gln Lys Leu Gln Glu Tyr Ile Gln Leu		
35	40	45
Asn Phe Ala Val Asp Glu Ser Thr Val Pro Pro Asp His Ser Pro Pro		
50	55	60
Glu Met Glu Ile Cys Thr Val Tyr Leu Thr Lys Glu Leu Gly Asp Thr		
65	70	75 80
Glu Thr Val Gly Leu Ser Phe Gly Asn Ile Pro Val Phe Gly Asp Tyr		
85	90	95
Gly Glu Lys Arg Arg Gly Gly Lys Lys Arg Lys Thr His Gln Gly Pro		
100	105	110
Val Leu Asp Val Gly Cys Ile Trp Val Thr Glu Leu Arg Lys Asn Ser		
115	120	125
Pro Ala Gly Lys Ser Gly Lys Val Arg Leu Arg Asp Glu Ile Leu Ser		
130	135	140
Leu Asn Gly Gln Leu Met Val Gly Val Asp Val Ser Gly Ala Ser Tyr		
145	150	155 160
Leu Ala Glu Gln Cys Trp Asn Gly Gly Phe Ile Tyr Leu Ile Met Leu		
165	170	175
Arg Arg Phe Lys His Lys Ala His Ser Thr Tyr Asn Gly Asn Ser Ser		
180	185	190
Asn Ser Ser Glu Pro Gly Glu Thr Pro Thr Leu Glu Leu Gly Asp Arg		
195	200	205
Thr Ala Lys Lys Gly Lys Arg Thr Arg Lys Phe Gly Val Ile Ser Arg		
210	215	220

Pro Pro Ala Asn Lys Ala Pro Glu Glu Ser Lys Gly Ser Ala Gly Cys
 225 230 235 240
 Glu Val Ser Ser Asp Pro Ser Thr Glu Leu Glu Asn Gly Ala Asp Pro
 245 250 255
 Glu Leu Gly Asn Gly His Val Phe Gln Leu Glu Asn Gly Pro Asp Ser
 260 265 270
 Leu Lys Glu Val Ala Gly Pro His Leu Glu Arg Ser Glu Val Asp Arg
 275 280 285
 Gly Thr Glu His Arg Ile Pro Lys Thr Asp Ala Pro Leu Thr Thr Ser
 290 295 300
 Asn Asp Lys Arg Arg Phe Ser Lys Gly Gly Lys Thr Asp Phe Gln Ser
 305 310 315 320
 Ser Asp Cys Leu Ala Arg Gln Glu Glu Val Gly Arg Ile Trp Lys Met
 325 330 335
 Glu Leu Leu Lys Glu Ser Asp Gly Leu Gly Ile Gln Val Ser Gly Gly
 340 345 350
 Arg Gly Ser Lys Arg Ser Pro His Ala Ile Val Val Thr Gln Val Lys
 355 360 365
 Glu Gly Gly Ala Ala His Arg Glu Tyr His Ile Val Lys Lys Ser Thr
 370 375 380
 Arg Ser Leu Ser Thr Thr Gln Val Glu Ser Pro Trp Arg Leu Ile Arg
 385 390 395 400
 Pro Ser Val Ile Ser Ile Ile Gly Leu Tyr Lys Glu Lys Gly Lys Gly
 405 410 415
 Leu Gly Phe Ser Ile Ala Gly Gly Arg Asp Cys Ile Arg Gly Gln Met
 420 425 430
 Gly Ile Phe Val Lys Thr Ile Phe Pro Asn Gly Ser Ala Ala Glu Asp
 435 440 445
 Gly Arg Leu Lys Glu Gly Asp Glu Ile Leu Asp Val Asn Gly Ile Pro
 450 455 460
 Ile Lys Gly Leu Thr Phe Gln Glu Ala Ile His Thr Phe Lys Gln Ile
 465 470 475 480
 Arg Ser Gly Leu Phe Val Leu Thr Val Arg Thr Lys Leu Val Ser Pro
 485 490 495
 Ser Leu Thr Pro Cys Ser Thr Pro Thr His Met Ser Arg Ser Ala Ser
 500 505 510
 Pro Asn Phe Asn Thr Ser Gly Gly Ala Ser Ala Gly Gly Ser Asp Glu
 515 520 525

Gly	Ser	Ser	Ser	Ser	Leu	Gly	Arg	Lys	Thr	Pro	Gly	Pro	Lys	Asp	Arg		
530						535					540						
Ile	Val	Met	Glu	Val	Thr	Leu	Asn	Lys	Glu	Pro	Arg	Val	Gly	Leu	Gly		
545					550					555					560		
Ile	Gly	Ala	Cys	Cys	Leu	Ala	Leu	Glu	Asn	Ser	Pro	Pro	Gly	Ile	Tyr		
			565						570					575			
Ile	His	Ser	Leu	Ala	Pro	Gly	Ser	Val	Ala	Lys	Met	Glu	Ser	Asn	Leu		
			580					585					590				
Ser	Arg	Gly	Asp	Gln	Ile	Leu	Glu	Val	Asn	Ser	Val	Asn	Val	Arg	His		
		595					600					605					
Ala	Ala	Leu	Ser	Lys	Val	His	Ala	Ile	Leu	Ser	Lys	Cys	Pro	Val	Ser		
		610				615					620						
Glu	Gln	Glu	Met	Asp	Glu	Val	Ile	Ala	Arg	Ser	Thr	Tyr	Gln	Glu	Ser		
625					630					635					640		
Lys	Glu	Ala	Asn	Ser	Ser	Pro	Gly	Leu	Gly	Thr	Pro	Leu	Lys	Ser	Pro		
			645						650					655			
Ser	Leu	Ala	Lys	Lys	Asp	Ser	Leu	Ile	Ser	Glu	Ser	Glu	Leu	Ser	Gln		
			660					665					670				
Tyr	Phe	Ala	His	Asp	Val	Pro	Gly	Pro	Leu	Ser	Asp	Phe	Met	Val	Ala		
		675					680					685					
Gly	Ser	Glu	Asp	Glu	Asp	His	Pro	Gly	Ser	Gly	Cys	Ser	Thr	Ser	Glu		
		690				695					700						
Glu	Gly	Ser	Leu	Pro	Pro	Ser	Thr	Ser	Ser	Glu	Pro	Gly	Lys	Pro	Arg		
705					710					715					720		
Ala	Asn	Ser	Leu	Val	Thr	Leu	Gly	Ser	His	Arg	Ala	Ser	Gly	Leu	Phe		
				725					730					735			
His	Lys	Gln	Val	Thr	Val	Ala	Arg	Gln	Ala	Ser	Leu	Pro	Gly	Ser	Pro		
			740					745					750				
Gln	Ala	Leu	Arg	Asn	Pro	Leu	Leu	Arg	Gln	Arg	Lys	Val	Gly	Cys	Tyr		
		755					760					765					
Asp	Ala	Asn	Asp	Ala	Ser	Asp	Glu	Glu	Glu	Phe	Asp	Arg	Glu	Gly	Asp		
		770				775					780						
Cys	Ile	Ser	Leu	Pro	Gly	Ala	Leu	Pro	Gly	Pro	Ile	Arg	Pro	Leu	Ser		
785					790					795					800		
Glu	Asp	Asp	Pro	Arg	Arg	Val	Ser	Ile	Ser	Ser	Ser	Lys	Gly	Met	Asp		
			805						810					815			
Val	His	Asn	Gln	Glu	Glu	Arg	Pro	Arg	Lys	Thr	Leu	Val	Ser	Lys	Ala		
			820					825						830			

Ile Ser Ala Pro Leu Leu Gly Ser Ser Val Asp Leu Glu Glu Ser Ile
 835 840 845
 Pro Glu Gly Met Val Asp Ala Ala Ser Tyr Ala Ala Asn Leu Thr Asp
 850 855 860
 Ser Ala Glu Ala Pro Lys Gly Ser Pro Gly Ser Trp Trp Lys Lys Glu
 865 870 875 880
 Leu Ser Gly Ser Ser Ser Ala Pro Lys Leu Glu Tyr Thr Val Arg Thr
 885 890 895
 Asp Thr Gln Ser Pro Thr Asn Thr Gly Ser Pro Ser Ser Pro Gln Gln
 900 905 910
 Lys Ser Glu Gly Leu Gly Ser Arg His Arg Pro Val Ala Arg Val Ser
 915 920 925
 Pro His Cys Lys Arg Ser Glu Ala Glu Ala Lys Pro Ser Gly Ser Gln
 930 935 940
 Thr Val Asn Leu Thr Gly Arg Ala Asn Asp Pro Cys Asp Leu Asp Ser
 945 950 955 960
 Arg Val Gln Ala Thr Ser Val Lys Val Thr Val Ala Gly Phe Gln Pro
 965 970 975
 Gly Gly Ala Val Glu Lys Leu Cys Gln Glu Ser Leu Gly Lys Leu Thr
 980 985 990
 Thr Gly Asp Ala Cys Val Ser Thr Ser Cys Glu Leu Ala Ser Ala Leu
 995 1000 1005
 Ser His Leu Asp Ala Ser His Leu Thr Glu Asn Leu Pro Lys Ala Ala
 1010 1015 1020
 Ser Glu Leu Gly Gln Gln Pro Met Thr Ser Ser Asp Leu Ile Ser Ser
 1025 1030 1035 1040
 Pro Gly Lys Lys Gly Ala Ala His Pro Asp Pro Ser Lys Thr Ser Val
 1045 1050 1055
 Asp Thr Gly Gln Val Ser Arg Pro Glu Asn Pro Ser Gln Pro Ala Ser
 1060 1065 1070
 Pro Arg Val Thr Lys Cys Lys Ala Arg Ser Pro Val Arg Leu Pro His
 1075 1080 1085
 Glu Gly Ser Pro Ser Pro Gly Glu Lys Ala Ala Ala Pro Pro Asp Tyr
 1090 1095 1100
 Ser Lys Thr Arg Ser Ala Ser Glu Thr Ser Thr Pro His Asn Thr Arg
 1105 1110 1115 1120
 Arg Val Ala Ala Leu Arg Gly Ala Gly Pro Gly Ala Glu Gly Met Thr
 1125 1130 1135

Pro Ala Gly Ala Val Leu Pro Gly Asp Pro Leu Thr Ser Gln Glu Gln
 1140 1145 1150
 Arg Gln Gly Ala Pro Gly Asn His Ser Lys Ala Leu Glu Met Thr Gly
 1155 1160 1165
 Ile His Ala Pro Glu Ser Ser Gln Glu Pro Ser Leu Leu Glu Gly Ala
 1170 1175 1180
 Asp Ser Val Ser Ser Arg Ala Pro Gln Ala Ser Leu Ser Met Leu Pro
 1185 1190 1195 1200
 Ser Thr Asp Asn Thr Lys Glu Ala Cys Gly His Val Ser Gly His Cys
 1205 1210 1215
 Cys Pro Gly Gly Ser Arg Glu Ser Pro Val Thr Asp Ile Asp Ser Phe
 1220 1225 1230
 Ile Lys Glu Leu Asp Ala Ser Ala Ala Arg Ser Pro Ser Ser Gln Thr
 1235 1240 1245
 Gly Asp Ser Gly Ser Gln Glu Gly Ser Ala Gln Gly His Pro Pro Ala
 1250 1255 1260
 Gly Ala Gly Gly Gly Ser Ser Cys Arg Ala Glu Pro Val Pro Gly Gly
 1265 1270 1275 1280
 Gln Thr Ser Ser Pro Arg Arg Ala Trp Ala Ala Gly Ala Pro Ala Tyr
 1285 1290 1295
 Pro Gln Trp Ala Ser Gln Pro Ser Val Leu Asp Ser Ile Asn Pro Asp
 1300 1305 1310
 Lys His Phe Thr Val Asn Lys Asn Phe Leu Ser Asn Tyr Ser Arg Asn
 1315 1320 1325
 Phe Ser Ser Phe His Glu Asp Ser Thr Ser Leu Ser Gly Leu Gly Asp
 1330 1335 1340
 Ser Thr Glu Pro Ser Leu Ser Ser Met Tyr Gly Asp Ala Glu Asp Ser
 1345 1350 1355 1360
 Ser Ser Asp Pro Glu Ser Leu Thr Glu Ala Pro Arg Ala Ser Ala Arg
 1365 1370 1375
 Asp Gly Trp Ser Pro Pro Arg Ser Arg Val Ser Leu His Lys Glu Asp
 1380 1385 1390
 Pro Ser Glu Ser Glu Glu Glu Gln Ile Glu Ile Cys Ser Thr Arg Gly
 1395 1400 1405
 Cys Pro Asn Pro Pro Ser Ser Pro Ala His Leu Pro Thr Gln Ala Ala
 1410 1415 1420
 Ile Cys Pro Ala Ser Ala Lys Val Leu Ser Leu Lys Tyr Ser Thr Pro
 1425 1430 1435 1440

Arg Glu Ser Val Ala Ser Pro Arg Glu Lys Ala Ala Cys Leu Pro Gly
 1445 1450 1455
 Ser Tyr Thr Ser Gly Pro Asp Ser Ser Gln Pro Ser Ser Leu Leu Glu
 1460 1465 1470
 Met Ser Ser Gln Glu His Glu Thr His Ala Asp Ile Ser Thr Ser Gln
 1475 1480 1485
 Asn His Arg Pro Ser Cys Ala Glu Glu Thr Thr Glu Val Thr Ser Ala
 1490 1495 1500
 Ser Ser Ala Met Glu Asn Ser Pro Leu Ser Lys Val Ala Arg His Phe
 1505 1510 1515 1520
 His Ser Pro Pro Ile Ile Leu Ser Ser Pro Asn Met Val Asn Gly Leu
 1525 1530 1535
 Glu His Asp Leu Leu Asp Asp Glu Thr Leu Asn Gln Tyr Glu Thr Ser
 1540 1545 1550
 Ile Asn Ala Ala Ala Ser Leu Ser Ser Phe Ser Val Asp Val Pro Lys
 1555 1560 1565
 Asn Gly Glu Ser Val Leu Glu Asn Leu His Ile Ser Glu Ser Gln Asp
 1570 1575 1580
 Leu Asp Asp Leu Leu Gln Lys Pro Lys Met Ile Ala Arg Arg Pro Ile
 1585 1590 1595 1600
 Met Ala Trp Phe Lys Glu Ile Asn Lys His Asn Gln Gly Thr His Leu
 1605 1610 1615
 Arg Ser Lys Thr Glu Lys Glu Gln Pro Leu Met Pro Ala Arg Ser Pro
 1620 1625 1630
 Asp Ser Lys Ile Gln Met Val Ser Ser Ser Gln Lys Lys Gly Val Thr
 1635 1640 1645
 Val Pro His Ser Pro Pro Gln Pro Lys Thr Asn Leu Glu Asn Lys Asp
 1650 1655 1660
 Leu Ser Lys Lys Ser Pro Ala Glu Met Leu Leu Thr Asn Gly Gln Lys
 1665 1670 1675 1680
 Ala Lys Cys Gly Pro Lys Leu Lys Arg Leu Ser Leu Lys Gly Lys Ala
 1685 1690 1695
 Lys Val Asn Ser Glu Ala Pro Ala Ala Asn Ala Val Lys Ala Gly Gly
 1700 1705 1710
 Thr Asp His Arg Lys Pro Leu Ile Ser Pro Gln Thr Ser His Lys Thr
 1715 1720 1725
 Leu Ser Lys Ala Val Ser Gln Arg Leu His Val Ala Asp His Glu Asp
 1730 1735 1740

Pro Asp Arg Asn Thr Thr Ala Ala Pro Arg Ser Pro Gln Cys Val Leu
 1745 1750 1755 1760

Glu Ser Lys Pro Pro Leu Ala Thr Ser Gly Pro Leu Lys Pro Ser Val
 1765 1770 1775

Ser Asp Thr Ser Ile Arg Thr Phe Val Ser Pro Leu Thr Ser Pro Lys
 1780 1785 1790

Pro Val Pro Glu Gln Gly Met Trp Ser Arg Phe His Met Ala Val Leu
 1795 1800 1805

Ser Glu Pro Asp Arg Gly Cys Pro Thr Thr Pro Lys Ser Pro Lys Cys
 1810 1815 1820

Arg Ala Glu Gly Arg Ala Pro Arg Ala Asp Ser Gly Pro Val Ser Pro
 1825 1830 1835 1840

Ala Ala Ser Arg Asn Gly Met Ser Val Ala Gly Asn Arg Gln Ser Glu
 1845 1850 1855

Pro Arg Leu Ala Ser His Val Ala Ala Asp Thr Ala Gln Pro Arg Pro
 1860 1865 1870

Thr Gly Glu Lys Gly Gly Asn Ile Met Ala Ser Asp Arg Leu Glu Arg
 1875 1880 1885

Thr Asn Gln Leu Lys Ile Val Glu Ile Ser Ala Glu Ala Val Ser Glu
 1890 1895 1900

Thr Val Cys Gly Asn Lys Pro Ala Glu Ser Asp Arg Arg Gly Gly Cys
 1905 1910 1915 1920

Leu Ala Gln Gly Asn Cys Gln Glu Lys Ser Glu Ile Arg Leu Tyr Arg
 1925 1930 1935

Gln Val Ala Glu Ser Ser Thr Ser His Pro Ser Ser Leu Pro Ser His
 1940 1945 1950

Ala Ser Gln Ala Glu Gln Glu Met Ser Arg Ser Phe Ser Met Ala Lys
 1955 1960 1965

Leu Ala Ser Ser Ser Ser Ser Leu Gln Thr Ala Ile Arg Lys Ala Glu
 1970 1975 1980

Tyr Ser Gln Gly Lys Ser Ser Leu Met Ser Asp Ser Arg Gly Val Pro
 1985 1990 1995 2000

Arg Asn Ser Ile Pro Gly Gly Pro Ser Gly Glu Asp His Leu Tyr Phe
 2005 2010 2015

Thr Pro Arg Pro Ala Thr Arg Thr Tyr Ser Met Pro Ala Gln Phe Ser
 2020 2025 2030

Ser His Phe Gly Arg Glu Gly His Pro Pro His Ser Leu Gly Arg Ser
 2035 2040 2045

Arg Asp Ser Gln Val Pro Val Thr Ser Ser Val Val Pro Glu Ala Lys
 2050 2055 2060
 Ala Ser Arg Gly Gly Leu Pro Ser Leu Ala Asn Gly Gln Gly Ile Tyr
 2065 2070 2075 2080
 Ser Val Lys Pro Leu Leu Asp Thr Ser Arg Asn Leu Pro Ala Thr Asp
 2085 2090 2095
 Glu Gly Asp Ile Ile Ser Val Gln Glu Thr Ser Cys Leu Val Thr Asp
 2100 2105 2110
 Lys Ile Lys Val Thr Arg Arg His Tyr Cys Tyr Glu Gln Asn Trp Pro
 2115 2120 2125
 His Glu Ser Thr Ser Phe Phe Ser Val Lys Gln Arg Ile Lys Ser Phe
 2130 2135 2140
 Glu Asn Leu Ala Asn Ala Asp Arg Pro Val Ala Lys Ser Gly Ala Ser
 2145 2150 2155 2160
 Pro Phe Leu Ser Val Ser Ser Lys Pro Pro Ile Gly Arg Arg Ser Ser
 2165 2170 2175
 Gly Ser Ile Val Ser Gly Ser Leu Gly His Pro Gly Asp Ala Ala Ala
 2180 2185 2190
 Arg Leu Leu Arg Arg Ser Leu Ser Ser Cys Ser Glu Asn Gln Ser Glu
 2195 2200 2205
 Ala Gly Thr Leu Leu Pro Gln Met Ala Lys Ser Pro Ser Ile Met Thr
 2210 2215 2220
 Leu Thr Ile Ser Arg Gln Asn Pro Pro Glu Thr Ser Ser Lys Gly Ser
 2225 2230 2235 2240
 Asp Ser Glu Leu Lys Lys Ser Leu Gly Pro Leu Gly Ile Pro Thr Pro
 2245 2250 2255
 Thr Met Thr Leu Ala Ser Pro Val Lys Arg Asn Lys Ser Ser Val Arg
 2260 2265 2270
 His Thr Gln Pro Ser Pro Val Ser Arg Ser Lys Leu Gln Glu Leu Arg
 2275 2280 2285
 Ala Leu Ser Met Pro Asp Leu Asp Lys Leu Cys Ser Glu Asp Tyr Ser
 2290 2295 2300
 Ala Gly Pro Ser Ala Val Leu Phe Lys Thr Glu Leu Glu Ile Thr Pro
 2305 2310 2315 2320
 Arg Arg Ser Pro Gly Pro Pro Ala Gly Gly Val Ser Cys Pro Glu Lys
 2325 2330 2335
 Gly Gly Asn Arg Ala Cys Pro Gly Gly Ser Gly Pro Lys Thr Ser Ala
 2340 2345 2350

Ala Glu Thr Pro Ser Ser Ala Ser Asp Thr Gly Glu Ala Ala Gln Asp
 2355 2360 2365
 Leu Pro Phe Arg Arg Ser Trp Ser Val Lys Leu Asp Gln Leu Leu Val
 2370 2375 2380
 Ser Ala Gly Asp Gln Gln Arg Leu Gln Ser Val Leu Ser Ser Val Gly
 2385 2390 2395 2400
 Ser Lys Ser Thr Ile Leu Thr Leu Ile Gln Glu Ala Lys Ala Gln Ser
 2405 2410 2415
 Glu Asn Glu Glu Asp Val Cys Phe Ile Val Leu Asn Arg Lys Glu Gly
 2420 2425 2430
 Ser Gly Leu Gly Phe Ser Val Ala Gly Gly Thr Asp Val Glu Pro Lys
 2435 2440 2445
 Ser Ile Thr Val His Arg Val Phe Ser Gln Gly Ala Ala Ser Gln Glu
 2450 2455 2460
 Gly Thr Met Asn Arg Gly Asp Phe Leu Leu Ser Val Asn Gly Ala Ser
 2465 2470 2475 2480
 Leu Ala Gly Leu Ala His Gly Asn Val Leu Lys Val Leu His Gln Ala
 2485 2490 2495
 Gln Leu His Lys Asp Ala Leu Val Val Ile Lys Lys Gly Met Asp Gln
 2500 2505 2510
 Pro Arg Pro Ser Ala Arg Gln Glu Pro Pro Thr Ala Asn Gly Lys Gly
 2515 2520 2525
 Leu Leu Ser Arg Lys Thr Ile Pro Leu Glu Pro Gly Ile Gly Arg Ser
 2530 2535 2540
 Val Ala Val His Asp Ala Leu Cys Val Glu Val Leu Lys Thr Ser Ala
 2545 2550 2555 2560
 Gly Leu Gly Leu Ser Leu Asp Gly Gly Lys Ser Ser Val Thr Gly Asp
 2565 2570 2575
 Gly Pro Leu Val Ile Lys Arg Val Tyr Lys Gly Gly Ala Ala Glu Gln
 2580 2585 2590
 Ala Gly Ile Ile Glu Ala Gly Asp Glu Ile Leu Ala Ile Asn Gly Lys
 2595 2600 2605
 Pro Leu Val Gly Leu Met His Phe Asp Ala Trp Asn Ile Met Lys Ser
 2610 2615 2620
 Val Pro Glu Gly Pro Val Gln Leu Leu Ile Arg Lys His Arg Asn Ser
 2625 2630 2635 2640
 Ser

<210> 64
 <211> 364
 <212> PRT
 <213> Mus musculus

<400> 64

Met	Leu	Arg	Arg	Phe	Lys	Gln	Lys	Ala	His	Leu	Thr	Tyr	Asn	Gly	Asn
1				5					10					15	
Ser	Gly	Asn	Ser	Ser	Glu	Pro	Gly	Glu	Thr	Pro	Thr	Leu	Glu	Leu	Gly
		20						25					30		
Asp	Gln	Thr	Ser	Lys	Lys	Gly	Lys	Arg	Thr	Arg	Lys	Phe	Gly	Val	Ile
		35					40					45			
Ser	Arg	Pro	Ala	Ile	Ile	Lys	Ala	Pro	Glu	Asp	Ser	Lys	Ser	Asn	Ser
	50					55					60				
Gly	Cys	Asp	Thr	Ala	Asp	Asp	Pro	Ser	Ser	Glu	Leu	Glu	Asn	Gly	Thr
65					70					75					80
Asp	Ser	Glu	Leu	Gly	Asn	Gly	His	Ala	Phe	Glu	Leu	Glu	Asn	Gly	Pro
				85					90					95	
Asn	Ser	Leu	Lys	Asp	Val	Ala	Gly	Pro	His	Leu	Glu	Arg	Ser	Glu	Ala
		100						105					110		
Asp	Arg	Glu	Ala	Glu	Leu	Arg	Val	Pro	Lys	Thr	Glu	Ala	Pro	Leu	Ser
		115					120					125			
Asp	Ser	Asn	Asp	Lys	Arg	Arg	Phe	Ser	Lys	Thr	Gly	Lys	Thr	Asn	Phe
	130					135					140				
Gln	Ser	Ser	Asp	Ser	Leu	Ala	Arg	Glu	Glu	Val	Gly	Arg	Ile	Trp	Glu
145					150					155					160
Met	Glu	Leu	Leu	Lys	Glu	Ser	Asp	Gly	Leu	Gly	Ile	Gln	Val	Ser	Gly
				165					170					175	
Gly	Arg	Gly	Ser	Lys	Arg	Ser	Pro	His	Ala	Ile	Val	Val	Thr	Gln	Val
		180						185					190		
Lys	Glu	Gly	Gly	Ala	Ala	His	Arg	Asp	Gly	Arg	Leu	Ser	Leu	Gly	Asp
		195					200					205			
Glu	Leu	Leu	Val	Ile	Asn	Gly	His	Leu	Leu	Val	Gly	Leu	Ser	His	Glu
	210					215					220				
Glu	Ala	Val	Ala	Ile	Leu	Arg	Ser	Ala	Thr	Gly	Met	Val	Gln	Leu	Val
225					230					235					240
Val	Ala	Ser	Lys	Met	Leu	Gly	Ser	Glu	Glu	Ser	Gln	Asp	Val	Gly	Ser
				245					250					255	
Ser	Glu	Glu	Ser	Lys	Gly	Asn	Asn	Leu	Glu	Ser	Pro	Lys	Gln	Gly	Asn
			260					265					270		

Ser Lys Met Lys Leu Lys Ser Arg Leu Ser Gly Gly Val His Arg Leu
 275 280 285
 Glu Ser Val Glu Glu Tyr Asn Glu Leu Met Val Arg Asn Gly Asp Pro
 290 295 300
 Arg Ile Arg Met Leu Glu Val Ser Arg Asp Gly Arg Lys His Ser Leu
 305 310 315 320
 Pro Gln Leu Leu Asp Ser Thr Gly Thr Ser Gln Glu Tyr His Ile Val
 325 330 335
 Lys Lys Ser Thr Arg Ser Leu Ser Thr Thr His Val Glu Ser Pro Trp
 340 345 350
 Arg Leu Ile Arg Pro Ser Val Ile Ser Ile Ile Gly
 355 360

<210> 65
 <211> 51
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: LRRCT
 Consensus Sequence

<400> 65
 Asn Pro Phe Ile Cys Asp Cys Glu Leu Arg Trp Leu Leu Arg Trp Leu
 1 5 10 15
 Gln Ala Asn Arg His Leu Gln Asp Pro Val Asp Leu Arg Cys Ala Ser
 20 25 30
 Pro Glu Ser Leu Arg Gly Pro Leu Leu Leu Leu Pro Ser Ser Phe
 35 40 45
 Lys Cys Pro
 50

<210> 66
 <211> 51
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: LRRCT
 Consensus Sequence

<400> 66
 Asn Pro Phe Ile Cys Asp Cys Glu Leu Arg Trp Leu Leu Arg Trp Leu
 1 5 10 15
 Arg Glu Pro Arg Arg Leu Glu Asp Pro Glu Asp Leu Arg Cys Ala Ser

20 25 30

Pro Glu Ser Leu Arg Gly Pro Leu Leu Glu Leu Leu Pro Ser Asp Phe
35 40 45

Ser Cys Pro
50

<210> 67
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: CLECT
Consensus Sequence

<400> 67
Cys Pro Ser Gly Trp Val Ser Tyr Pro Gly Gly Lys Cys Tyr Lys Phe
1 5 10 15
Ser Thr Glu Lys Lys Thr Trp Ala Asp Ala Gln Ala Phe Cys Gln Ser
20 25 30
Leu Gly Ala His Leu Ala Ser Ile His Ser Glu Glu Glu Asn Asp Phe
35 40 45
Leu Leu Ser Leu Leu Lys Asn Ser Asn Ser Asp Tyr Tyr Trp Ile Gly
50 55 60
Leu Ser Arg Pro Asp Ser Asn Gly Ser Trp Gln Trp Ser Asp Gly Ser
65 70 75 80
Gly Pro Val Asp Tyr Ser Asn Trp Ala Pro Gly Glu Pro Gly Gly Ser
85 90 95
Gly Asn Cys Val Val Leu Ser Thr Ser Gly Gly Gly Lys Trp Asn Asp
100 105 110
Val Ser Cys Thr Ser Lys Leu Pro Phe Ile Cys Glu
115 120

<210> 68
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: CUB Consensus
Sequence

<400> 68
Cys Gly Gly Thr Leu Thr Ala Ser Ser Gly Thr Ile Thr Ser Pro Asn
1 5 10 15

Tyr Pro Asn Ser Tyr Pro Asn Asn Leu Asn Cys Val Trp Thr Ile Ser
 20 25 30
 Ala Pro Pro Gly Tyr Arg Ile Glu Leu Lys Phe Thr Asp Phe Asp Leu
 35 40 45
 Glu Ser Ser Asp Asn Cys Thr Tyr Asp Tyr Val Glu Ile Tyr Asp Gly
 50 55 60
 Pro Ser Thr Ser Ser Pro Leu Leu Gly Arg Phe Cys Gly Ser Glu Leu
 65 70 75 80
 Pro Pro Pro Ile Ile Ser Ser Ser Ser Asn Ser Met Thr Val Thr Phe
 85 90 95
 Val Ser Asp Ser Ser Val Gln Lys Arg Gly Phe Ser Ala Arg Tyr Ser
 100 105 110

Ala Val

<210> 69
 <211> 110
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: CUB Consensus
 Sequence

<400> 69
 Cys Gly Gly Val Leu Thr Glu Ser Ser Gly Ser Ile Ser Ser Pro Asn
 1 5 10 15
 Tyr Pro Asn Asp Tyr Pro Pro Asn Lys Glu Cys Val Trp Thr Ile Arg
 20 25 30
 Ala Pro Pro Gly Tyr Arg Val Glu Leu Thr Phe Gln Asp Phe Asp Leu
 35 40 45
 Glu Asp His Thr Gly Cys Arg Tyr Asp Tyr Val Glu Ile Arg Asp Gly
 50 55 60
 Asp Gly Ser Ser Ser Pro Leu Leu Gly Lys Phe Cys Gly Ser Gly Pro
 65 70 75 80
 Pro Glu Asp Ile Val Ser Ser Ser Asn Arg Met Thr Ile Lys Phe Val
 85 90 95
 Ser Asp Ala Ser Val Ser Lys Arg Gly Phe Lys Ala Thr Tyr
 100 105 110

<210> 70
 <211> 107
 <212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Lectin C-type
domain Consensus Sequence

<400> 70

```
Glu Ser Lys Thr Trp Ala Glu Ala Gln Ala Ala Cys Gln Lys Leu Gly
 1             5             10             15

Gly Gly Leu Val Ser Ile Gln Ser Ala Glu Glu Gln Asp Phe Leu Thr
      20             25             30

Ser Leu Thr Lys Ala Ser Asn Ser Tyr Ala Trp Ile Gly Leu Thr Asp
      35             40             45

Ile Asn Thr Glu Gly Thr Trp Val Trp Thr Asp Gly Ser Pro Val Asn
 50             55             60

Tyr Thr Asn Trp Ala Pro Gly Glu Pro Asn Asn Arg Gly Asn Lys Glu
 65             70             75             80

Asp Cys Val Glu Ile Tyr Thr Asp Gly Asn Lys Trp Asn Asp Glu Pro
      85             90             95

Cys Gly Ser Lys Leu Pro Tyr Val Cys Glu Phe
      100             105
```

<210> 71

<211> 304

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: CNH domain
Consensus Sequence

<400> 71

```
Tyr Thr Ala Lys Cys Asn His Pro Ile Thr Cys Asp Ala Lys Asn Leu
 1             5             10             15

Leu Val Gly Thr Glu Glu Gly Leu Tyr Val Leu Asn Arg Ser Asp Gln
      20             25             30

Gly Gly Thr Leu Glu Lys Ile Ile Ser Arg Arg Ser Val Thr Gln Ile
      35             40             45

Trp Val Leu Glu Glu Asn Asn Val Leu Leu Met Ile Ser Gly Lys Lys
 50             55             60

Pro Tyr Leu Tyr Ala His Pro Leu Ser Gly Leu Arg Glu Lys Asp Ala
 65             70             75             80

Leu Gly Ser Ala Arg Leu Val Ile Arg Lys Asn Val Trp Val Lys Ile
      85             90             95
```

Glu	Asp	Val	Lys	Gly	Cys	His	Leu	Phe	Ala	Val	Val	Asn	Gly	Lys	Arg	100	105	110	
Ile	Leu	Phe	Leu	Cys	Ala	Ala	Leu	Pro	Ser	Ser	Val	Gln	Leu	Leu	Gln	115	120	125	
Trp	Tyr	Asn	Pro	Leu	Lys	Lys	Phe	Lys	Leu	Phe	Lys	Ser	Lys	Phe	Leu	130	135	140	
Lys	Lys	Leu	Ile	Val	Pro	Val	Pro	Leu	Phe	Val	Leu	Leu	Thr	Ser	Ser	145	150	155	160
Ser	Phe	Glu	Leu	Pro	Lys	Ile	Cys	Ile	Gly	Val	Asp	Lys	Asn	Gly	Phe	165	170	175	
Asp	Val	Val	Gln	Phe	His	Gln	Thr	Ser	Leu	Val	Ser	Lys	Glu	Asp	Leu	180	185	190	
Ser	Leu	Pro	Asn	Leu	Asn	Glu	Glu	Thr	Ser	Lys	Lys	Pro	Ile	Pro	Val	195	200	205	
Ile	Gln	Val	Pro	Gln	Ser	Asp	Asp	Glu	Leu	Leu	Leu	Cys	Phe	Asp	Glu	210	215	220	
Phe	Gly	Val	Phe	Val	Asn	Leu	Gln	Gly	Met	Arg	Arg	Ser	Arg	Lys	Pro	225	230	235	240
Ile	Leu	Thr	Trp	Glu	Phe	Met	Pro	Glu	Tyr	Phe	Ala	Tyr	His	Glu	Pro	245	250	255	
Tyr	Leu	Leu	Ala	Phe	His	Ser	Asn	Gly	Ile	Glu	Ile	Arg	Ser	Ile	Glu	260	265	270	
Thr	Gly	Glu	Leu	Leu	Gln	Glu	Leu	Ala	Asp	Arg	Glu	Ala	Arg	Lys	Ile	275	280	285	
Arg	Val	Leu	Gly	Ser	Ser	Asp	Arg	Lys	Ile	Leu	Val	Ser	Ser	Ser	Pro	290	295	300	

<210> 72

<211> 256

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

Serine/Threonine protein kinase Consensus
Sequence

<400> 72

Tyr	Glu	Leu	Leu	Glu	Val	Leu	Gly	Lys	Gly	Ala	Phe	Gly	Lys	Val	Tyr	1	5	10	15
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	---	---	----	----

Leu Ala Arg Asp Lys Lys Thr Gly Lys Leu Val Ala Ile Lys Val Ile
 20 25 30
 Lys Lys Glu Lys Leu Lys Lys Lys Lys Arg Glu Arg Ile Leu Arg Glu
 35 40 45
 Ile Lys Ile Leu Lys Lys Leu Asp His Pro Asn Ile Val Lys Leu Tyr
 50 55 60
 Asp Val Phe Glu Asp Asp Asp Lys Leu Tyr Leu Val Met Glu Tyr Cys
 65 70 75 80
 Glu Gly Gly Asp Leu Phe Asp Leu Leu Lys Lys Arg Gly Arg Leu Ser
 85 90 95
 Glu Asp Glu Ala Arg Phe Tyr Ala Arg Gln Ile Leu Ser Ala Leu Glu
 100 105 110
 Tyr Leu His Ser Gln Gly Ile Ile His Arg Asp Leu Lys Pro Glu Asn
 115 120 125
 Ile Leu Leu Asp Ser Asp Gly His Val Lys Leu Ala Asp Phe Gly Leu
 130 135 140
 Ala Lys Gln Leu Asp Ser Gly Gly Thr Leu Leu Thr Thr Phe Val Gly
 145 150 155 160
 Thr Pro Glu Tyr Met Ala Pro Glu Val Leu Leu Gly Lys Gly Tyr Gly
 165 170 175
 Lys Ala Val Asp Ile Trp Ser Leu Gly Val Ile Leu Tyr Glu Leu Leu
 180 185 190
 Thr Gly Lys Pro Pro Phe Pro Gly Asp Asp Gln Leu Leu Ala Leu Phe
 195 200 205
 Lys Lys Ile Gly Lys Pro Pro Pro Pro Phe Pro Pro Pro Glu Trp Lys
 210 215 220
 Ile Ser Pro Glu Ala Lys Asp Leu Ile Lys Lys Leu Leu Val Lys Asp
 225 230 235 240
 Pro Glu Lys Arg Leu Thr Ala Glu Glu Ala Leu Glu His Pro Phe Phe
 245 250 255

<210> 73

<211> 301

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: CNH domain
 Consensus Sequence

<400> 73

Asn	Thr	Ala	Lys	Trp	Asn	His	Pro	Ile	Thr	Cys	Asp	Ala	Lys	Ile	Leu	1	5	10	15
Leu	Val	Gly	Thr	Glu	Glu	Gly	Leu	Tyr	Val	Leu	Asn	Ile	Ser	Asp	Gln	20	25	30	
His	Gly	Thr	Leu	Glu	Lys	Leu	Ile	Gly	Arg	Arg	Ser	Val	Thr	Gln	Ile	35	40	45	
Trp	Val	Leu	Glu	Glu	Asn	Asn	Val	Leu	Leu	Met	Ile	Ser	Gly	Lys	Lys	50	55	60	
Pro	Gln	Leu	Tyr	Ser	His	Pro	Leu	Ser	Ala	Leu	Thr	Glu	Lys	Asp	Ala	65	70	75	80
Leu	Gly	Ser	Ala	Arg	Leu	Val	Ile	Arg	Lys	Asn	Val	Leu	Thr	Lys	Ile	85	90	95	
Pro	Asp	Val	Lys	Gly	Cys	His	Leu	Cys	Ala	Val	Val	Asn	Gly	Lys	Arg	100	105	110	
Ile	Leu	Phe	Leu	Cys	His	Ala	Leu	Gln	Ser	Ser	Val	Val	Leu	Leu	Gln	115	120	125	
Trp	Tyr	Asn	Pro	Leu	Lys	Lys	Phe	Lys	Leu	Phe	Lys	Ser	Lys	Phe	Leu	130	135	140	
Phe	Pro	Leu	Ile	Ser	Pro	Val	Pro	Val	Phe	Val	Glu	Leu	Val	Ser	Ser	145	150	155	160
Ser	Phe	Glu	Leu	Pro	Gly	Ile	Cys	Ile	Gly	Ser	Asp	Lys	Asn	Gly	Gly	165	170	175	
Asp	Val	Val	Gln	Phe	His	Gln	Ser	Leu	Val	Ser	Lys	Glu	Asp	Leu	Ser	180	185	190	
Leu	Pro	Phe	Leu	Ser	Glu	Glu	Thr	Ser	Ser	Lys	Pro	Ile	Ser	Val	Val	195	200	205	
Gln	Val	Pro	Ala	Asp	Glu	Leu	Leu	Cys	Tyr	Asp	Glu	Phe	Gly	Val		210	215	220	
Phe	Val	Asn	Leu	Tyr	Gly	Met	Arg	Arg	Ser	Arg	Asn	Pro	Ile	Leu	His	225	230	235	240
Trp	Glu	Phe	Met	Pro	Glu	Ser	Phe	Ala	Tyr	His	Ser	Pro	Tyr	Leu	Leu	245	250	255	
Ala	Phe	His	Asp	Asn	Gly	Ile	Glu	Ile	Arg	Ser	Ile	Lys	Thr	Gly	Glu	260	265	270	
Leu	Leu	Gln	Glu	Leu	Ala	Asp	Arg	Lys	Thr	Arg	Lys	Ile	Arg	Leu	Leu	275	280	285	
Gly	Ser	Ser	Asp	Arg	Lys	Ile	Leu	Leu	Ser	Ser	Ser	Pro							

290

295

300

<210> 74

<211> 256

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Protein kinase
domain Consensus Sequence

<400> 74

Tyr	Glu	Leu	Gly	Glu	Lys	Leu	Gly	Ser	Gly	Ala	Phe	Gly	Lys	Val	Tyr
1				5					10					15	

Lys	Gly	Lys	His	Lys	Asp	Thr	Gly	Glu	Ile	Val	Ala	Ile	Lys	Ile	Leu
			20					25					30		

Lys	Lys	Arg	Ser	Leu	Ser	Glu	Lys	Lys	Lys	Arg	Phe	Leu	Arg	Glu	Ile
		35					40					45			

Gln	Ile	Leu	Arg	Arg	Leu	Ser	His	Pro	Asn	Ile	Val	Arg	Leu	Leu	Gly
	50					55					60				

Val	Phe	Glu	Glu	Asp	Asp	His	Leu	Tyr	Leu	Val	Met	Glu	Tyr	Met	Glu
65					70					75					80

Gly	Gly	Asp	Leu	Phe	Asp	Tyr	Leu	Arg	Arg	Asn	Gly	Leu	Leu	Leu	Ser
				85					90					95	

Glu	Lys	Glu	Ala	Lys	Lys	Ile	Ala	Leu	Gln	Ile	Leu	Arg	Gly	Leu	Glu
			100					105					110		

Tyr	Leu	His	Ser	Arg	Gly	Ile	Val	His	Arg	Asp	Leu	Lys	Pro	Glu	Asn
		115					120					125			

Ile	Leu	Leu	Asp	Glu	Asn	Gly	Thr	Val	Lys	Ile	Ala	Asp	Phe	Gly	Leu
	130					135					140				

Ala	Arg	Lys	Leu	Glu	Ser	Ser	Ser	Tyr	Glu	Lys	Leu	Thr	Thr	Phe	Val
145					150					155					160

Gly	Thr	Pro	Glu	Tyr	Met	Ala	Pro	Glu	Val	Leu	Glu	Gly	Arg	Gly	Tyr
			165						170					175	

Ser	Ser	Lys	Val	Asp	Val	Trp	Ser	Leu	Gly	Val	Ile	Leu	Tyr	Glu	Leu
			180					185					190		

Leu	Thr	Gly	Lys	Leu	Pro	Phe	Pro	Gly	Ile	Asp	Pro	Leu	Glu	Glu	Leu
		195						200					205		

Phe	Arg	Ile	Lys	Glu	Arg	Pro	Arg	Leu	Arg	Leu	Pro	Leu	Pro	Pro	Asn
	210						215				220				

Cys	Ser	Glu	Glu	Leu	Lys	Asp	Leu	Ile	Lys	Lys	Cys	Leu	Asn	Lys	Asp
225					230					235					240

Pro Glu Lys Arg Pro Thr Ala Lys Glu Ile Leu Asn His Pro Trp Phe
245 250 255

<210> 75

<211> 258

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Tyrosine
Kinase Consensus Sequence

<400> 75

Leu Thr Leu Gly Lys Lys Leu Gly Glu Gly Ala Phe Gly Glu Val Tyr
1 5 10 15

Lys Gly Thr Leu Lys Gly Lys Gly Gly Val Glu Val Glu Val Ala Val
20 25 30

Lys Thr Leu Lys Glu Asp Ala Ser Glu Gln Gln Ile Glu Glu Phe Leu
35 40 45

Arg Glu Ala Arg Leu Met Arg Lys Leu Asp His Pro Asn Ile Val Lys
50 55 60

Leu Leu Gly Val Cys Thr Glu Glu Glu Pro Leu Met Ile Val Met Glu
65 70 75 80

Tyr Met Glu Gly Gly Asp Leu Leu Asp Tyr Leu Arg Lys Asn Arg Pro
85 90 95

Lys Glu Leu Ser Leu Ser Asp Leu Leu Ser Phe Ala Leu Gln Ile Ala
100 105 110

Arg Gly Met Glu Tyr Leu Glu Ser Lys Asn Phe Val His Arg Asp Leu
115 120 125

Ala Ala Arg Asn Cys Leu Val Gly Glu Asn Lys Thr Val Lys Ile Ala
130 135 140

Asp Phe Gly Leu Ala Arg Asp Leu Tyr Asp Asp Asp Tyr Tyr Arg Lys
145 150 155 160

Lys Lys Ser Pro Arg Leu Pro Ile Arg Trp Met Ala Pro Glu Ser Leu
165 170 175

Lys Asp Gly Lys Phe Thr Ser Lys Ser Asp Val Trp Ser Phe Gly Val
180 185 190

Leu Leu Trp Glu Ile Phe Thr Leu Gly Glu Ser Pro Tyr Pro Gly Met
195 200 205

Ser Asn Glu Glu Val Leu Glu Tyr Leu Lys Lys Gly Tyr Arg Leu Pro
 210 215 220

Gln Pro Pro Asn Cys Pro Asp Glu Ile Tyr Asp Leu Met Leu Gln Cys
 225 230 235 240

Trp Ala Glu Asp Pro Glu Asp Arg Pro Thr Phe Ser Glu Leu Val Glu
 245 250 255

Arg Leu

<210> 76

<211> 430

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Sema domain
 Consensus Sequence

<400> 76

Leu Gln Asn Leu Leu Leu Asp Glu Asp Asn Gly Thr Leu Tyr Val Gly
 1 5 10 15

Ala Arg Asn Arg Leu Tyr Val Leu Ser Leu Asn Leu Ile Ser Glu Ala
 20 25 30

Glu Val Lys Thr Gly Pro Val Leu Ser Ser Pro Asp Cys Glu Glu Cys
 35 40 45

Val Ser Lys Gly Lys Asp Pro Pro Thr Asp Cys Val Asn Phe Ile Arg
 50 55 60

Leu Leu Leu Asp Tyr Asn Ala Asp His Leu Leu Val Cys Gly Thr Asn
 65 70 75 80

Ala Phe Gln Pro Val Cys Arg Leu Ile Asn Leu Gly Asn Leu Asp Arg
 85 90 95

Leu Glu Val Gly Arg Glu Ser Gly Arg Gly Arg Cys Pro Phe Asp Pro
 100 105 110

Gln His Asn Ser Thr Ala Val Leu Val Asp Gly Glu Leu Tyr Val Gly
 115 120 125

Thr Val Ala Asp Phe Ser Gly Ser Asp Pro Ala Ile Tyr Arg Ser Leu
 130 135 140

Ser Val Arg Arg Leu Lys Gly Thr Ser Gly Pro Ser Leu Arg Thr Val
 145 150 155 160

Leu Tyr Asp Ser Arg Trp Leu Asn Glu Pro Asn Phe Val Tyr Ala Phe
 165 170 175

Glu Ser Gly Asp Phe Val Tyr Phe Phe Phe Arg Glu Thr Ala Val Glu

180					185					190						
Asp	Glu	Asn	Cys	Gly	Lys	Ala	Val	Val	Ser	Arg	Val	Ala	Arg	Val	Cys	
195					200					205						
Lys	Asn	Asp	Val	Gly	Gly	Pro	Arg	Ser	Leu	Ser	Lys	Lys	Trp	Thr	Ser	
210					215					220						
Phe	Leu	Lys	Ala	Arg	Leu	Glu	Cys	Ser	Val	Pro	Gly	Glu	Phe	Pro	Phe	
225					230					235					240	
Tyr	Phe	Asn	Glu	Leu	Gln	Ala	Ala	Phe	Leu	Leu	Pro	Ala	Gly	Ser	Glu	
245					250					255						
Ser	Asp	Asp	Val	Leu	Tyr	Gly	Val	Phe	Ser	Thr	Ser	Ser	Asn	Pro	Ile	
260					265					270						
Pro	Gly	Ser	Ala	Val	Cys	Ala	Phe	Ser	Leu	Ser	Asp	Ile	Asn	Ala	Val	
275					280					285						
Phe	Asn	Glu	Pro	Phe	Lys	Glu	Cys	Glu	Thr	Gly	Asn	Ser	Gln	Trp	Leu	
290					295					300						
Pro	Tyr	Pro	Arg	Gly	Leu	Val	Pro	Phe	Pro	Arg	Pro	Gly	Thr	Cys	Pro	
305					310					315					320	
Asn	Thr	Pro	Leu	Ser	Ser	Lys	Asp	Leu	Pro	Asp	Asp	Val	Leu	Asn	Phe	
325					330					335						
Ile	Lys	Thr	His	Pro	Leu	Met	Asp	Glu	Val	Val	Gln	Pro	Leu	Thr	Gly	
340					345					350						
Arg	Pro	Leu	Phe	Val	Lys	Thr	Asp	Ser	Asn	Tyr	Leu	Leu	Thr	Ser	Ile	
355					360					365						
Ala	Val	Asp	Arg	Val	Arg	Thr	Asp	Gly	Gly	Asn	Tyr	Thr	Val	Leu	Phe	
370					375					380						
Leu	Gly	Thr	Ser	Asp	Gly	Arg	Ile	Leu	Lys	Val	Val	Leu	Ser	Arg	Ser	
385					390					395					400	
Ser	Ser	Ser	Ser	Glu	Ser	Val	Val	Leu	Glu	Glu	Ile	Ser	Val	Phe	Asp	
405					410					415						
Pro	Gly	Ser	Pro	Val	Ser	Asp	Leu	Val	Leu	Ser	Pro	Lys	Lys			
420					425					430						

<210> 77

<211> 433

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Sema domain
Consensus Sequence

<400> 77

Phe	Val	Thr	Leu	Leu	Leu	Asp	Glu	Asp	Arg	Gly	Arg	Leu	Tyr	Val	Gly	1	5	10	15
Ala	Arg	Asn	Arg	Val	Tyr	Val	Leu	Asn	Leu	Glu	Asp	Leu	Ser	Glu	Val	20	25	30	
Leu	Asn	Leu	Lys	Thr	Gly	Trp	Pro	Gly	Ser	Cys	Glu	Thr	Cys	Glu	Glu	35	40	45	
Cys	Asn	Met	Lys	Gly	Lys	Ser	Pro	Leu	Thr	Glu	Cys	Thr	Asn	Phe	Ile	50	55	60	
Arg	Val	Leu	Gln	Ala	Tyr	Asn	Asp	Thr	His	Leu	Tyr	Val	Cys	Gly	Thr	65	70	75	80
Asn	Ala	Phe	Gln	Pro	Val	Cys	Thr	Leu	Ile	Asn	Leu	Gly	Asp	Leu	Phe	85	90	95	
Ser	Leu	Asp	Val	Asp	Asn	Glu	Glu	Asp	Gly	Cys	Gly	Asp	Cys	Pro	Tyr	100	105	110	
Asp	Pro	Leu	Gly	Asn	Thr	Thr	Ser	Val	Leu	Val	Gln	Gly	Gly	Glu	Leu	115	120	125	
Tyr	Ser	Gly	Thr	Val	Ile	Asp	Phe	Ser	Gly	Arg	Asp	Pro	Ser	Ile	Arg	130	135	140	
Arg	Leu	Leu	Gly	Ser	His	Asp	Gly	Leu	Arg	Thr	Glu	Phe	His	Asp	Ser	145	150	155	160
Lys	Trp	Leu	Asn	Leu	Pro	Asn	Phe	Val	Asp	Ser	Tyr	Pro	Ile	His	Tyr	165	170	175	
Val	His	Ser	Phe	Ser	Asp	Asp	Lys	Val	Tyr	Phe	Phe	Phe	Arg	Glu	Thr	180	185	190	
Ala	Val	Glu	Asp	Ser	Asn	Cys	Lys	Thr	Ile	His	Ser	Arg	Val	Ala	Arg	195	200	205	
Val	Cys	Lys	Asn	Asp	Pro	Gly	Gly	Arg	Ser	Tyr	Leu	Glu	Leu	Asn	Lys	210	215	220	
Trp	Thr	Thr	Phe	Leu	Lys	Ala	Arg	Leu	Asn	Cys	Ser	Ile	Pro	Gly	Glu	225	230	235	240
Gly	Thr	Pro	Phe	Tyr	Phe	Asn	Glu	Leu	Gln	Ala	Ala	Phe	Val	Leu	Pro	245	250	255	
Thr	Gly	Ala	Asp	Thr	Asp	Pro	Val	Leu	Tyr	Gly	Val	Phe	Thr	Thr	Ser	260	265	270	
Ser	Asn	Ser	Ser	Ala	Gly	Ser	Ala	Val	Cys	Ala	Phe	Ser	Met	Ser	Asp	275	280	285	
Ile	Asn	Gln	Val	Phe	Glu	Gly	Pro	Phe	Lys	His	Gln	Ser	Pro	Asn	Ser	290	295	300	

Lys Trp Leu Pro Tyr Arg Gly Lys Val Pro Gln Pro Arg Pro Gly Gln
 305 310 315 320
 Cys Pro Asn Ala Ser Gly Leu Asn Leu Pro Asp Asp Thr Leu Asn Phe
 325 330 335
 Ile Arg Cys His Pro Leu Met Asp Glu Val Val Pro Pro Leu His Asn
 340 345 350
 Val Pro Leu Phe Val Gly Gln Ser Gly Asn Tyr Arg Leu Thr Ser Ile
 355 360 365
 Ala Val Asp Arg Val Arg Ala Gly Asp Gly Gln Ile Tyr Thr Val Leu
 370 375 380
 Phe Leu Gly Thr Asp Asp Gly Arg Val Leu Lys Gln Val Val Leu Ser
 385 390 395 400
 Arg Ser Ser Ser Ala Ser Tyr Leu Val Val Val Leu Glu Glu Ser Leu
 405 410 415
 Val Phe Pro Asp Gly Glu Pro Val Gln Arg Met Val Ile Ser Ser Lys
 420 425 430

Asn

<210> 78

<211> 85

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: TIG domain
Consensus Sequence

<400> 78

Pro Val Ile Thr Ser Ile Ser Pro Ser Ser Gly Pro Leu Ser Gly Gly
 1 5 10 15
 Thr Glu Ile Thr Ile Thr Gly Ser Asn Leu Gly Ser Gly Glu Asp Ile
 20 25 30
 Lys Val Thr Phe Gly Gly Thr Glu Cys Asp Val Val Ser Gln Glu Ala
 35 40 45
 Ser Gln Ile Val Cys Lys Thr Pro Pro Tyr Ala Asn Gly Gly Pro Gln
 50 55 60
 Pro Val Thr Val Ser Leu Asp Gly Gly Gly Leu Ser Ser Ser Pro Val
 65 70 75 80
 Thr Phe Thr Tyr Val
 85

<210> 79
 <211> 85
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: TIG Consensus
 Sequence

<400> 79
 Pro Val Ile Thr Ser Ile Ser Pro Ser Ser Gly Pro Leu Ser Gly Gly
 1 5 10 15
 Thr Glu Ile Thr Ile Thr Gly Ser Asn Leu Gly Ser Gly Glu Asp Ile
 20 25 30
 Lys Val Thr Phe Gly Gly Thr Glu Cys Asp Val Val Ser Gln Glu Ala
 35 40 45
 Ser Gln Ile Val Cys Lys Thr Pro Pro Tyr Ala Asn Gly Gly Pro Gln
 50 55 60
 Pro Val Thr Val Ser Leu Asp Gly Gly Gly Leu Ser Ser Ser Pro Val
 65 70 75 80
 Thr Phe Thr Tyr Val
 85

<210> 80
 <211> 85
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: TIG Consensus
 Sequence

<400> 80
 Pro Val Ile Thr Ser Ile Ser Pro Ser Ser Gly Pro Leu Ser Gly Gly
 1 5 10 15
 Thr Glu Ile Thr Ile Thr Gly Ser Asn Leu Gly Ser Gly Glu Asp Ile
 20 25 30
 Lys Val Thr Phe Gly Gly Thr Glu Cys Asp Val Val Ser Gln Glu Ala
 35 40 45
 Ser Gln Ile Val Cys Lys Thr Pro Pro Tyr Ala Asn Gly Gly Pro Gln
 50 55 60
 Pro Val Thr Val Ser Leu Asp Gly Gly Gly Leu Ser Ser Ser Pro Val
 65 70 75 80
 Thr Phe Thr Tyr Val
 85

<210> 81
 <211> 47
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PSI domain
 Consensus Sequence

<400> 81
 Arg Cys Ser Ala Tyr Thr Ser Cys Ser Glu Cys Leu Leu Ala Arg Asp
 1 5 10 15
 Pro Tyr Cys Ala Trp Cys Ser Ser Gln Gly Arg Cys Thr Ser Gly Glu
 20 25 30
 Arg Cys Asp Ser Leu Arg Gln Asn Trp Ser Ser Gly Gln Cys Pro
 35 40 45

<210> 82
 <211> 93
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: IPT Consensus
 Sequence

<400> 82
 Asp Pro Val Ile Thr Arg Ile Ser Pro Asn Ser Gly Pro Leu Ser Gly
 1 5 10 15
 Gly Thr Arg Ile Thr Leu Cys Gly Lys Asn Leu Asp Ser Ile Ser Val
 20 25 30
 Val Phe Val Glu Val Gly Val Gly Glu Val Pro Cys Thr Phe Leu Pro
 35 40 45
 Ser Asp Val Ser Gln Thr Ala Ile Val Cys Lys Thr Pro Pro Tyr His
 50 55 60
 Asn Ile Pro Gly Ser Val Pro Val Arg Val Glu Val Gly Leu Arg Asn
 65 70 75 80
 Gly Gly Val Pro Gly Glu Pro Ser Pro Phe Thr Tyr Val
 85 90

<210> 83
 <211> 254
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 7
transmembrane receptor Consensus Sequence

<400> 83

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Gly Asn Leu Leu Val Ile Leu Val Ile Leu Arg Thr Lys Lys Leu Arg
 1              5              10              15

Thr Pro Thr Asn Ile Phe Leu Leu Asn Leu Ala Val Ala Asp Leu Leu
          20              25              30

Phe Leu Leu Thr Leu Pro Pro Trp Ala Leu Tyr Tyr Leu Val Gly Gly
          35              40              45

Asp Trp Val Phe Gly Asp Ala Leu Cys Lys Leu Val Gly Ala Leu Phe
          50              55              60

Val Val Asn Gly Tyr Ala Ser Ile Leu Leu Leu Thr Ala Ile Ser Ile
          65              70              75              80

Asp Arg Tyr Leu Ala Ile Val His Pro Leu Arg Tyr Arg Arg Ile Arg
          85              90              95

Thr Pro Arg Arg Ala Lys Val Leu Ile Leu Leu Val Trp Val Leu Ala
          100             105             110

Leu Leu Leu Ser Leu Pro Pro Leu Leu Phe Ser Trp Leu Arg Thr Val
          115             120             125

Glu Glu Gly Asn Thr Thr Val Cys Leu Ile Asp Phe Pro Glu Glu Ser
          130             135             140

Val Lys Arg Ser Tyr Val Leu Leu Ser Thr Leu Val Gly Phe Val Leu
          145             150             155             160

Pro Leu Leu Val Ile Leu Val Cys Tyr Thr Arg Ile Leu Arg Thr Leu
          165             170             175

Arg Lys Arg Ala Arg Ser Gln Arg Ser Leu Lys Arg Arg Ser Ser Ser
          180             185             190

Glu Arg Lys Ala Ala Lys Met Leu Leu Val Val Val Val Val Phe Val
          195             200             205

Leu Cys Trp Leu Pro Tyr His Ile Val Leu Leu Leu Asp Ser Leu Cys
          210             215             220

Leu Leu Ser Ile Trp Arg Val Leu Pro Thr Ala Leu Leu Ile Thr Leu
          225             230             235             240

Trp Leu Ala Tyr Val Asn Ser Cys Leu Asn Pro Ile Ile Tyr
          245             250

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<210> 84

<211> 402

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: ANF receptor
Consensus Sequence

<400> 84

Gly	Leu	Ile	Asn	Tyr	Ala	Val	Arg	Gly	Ile	Thr	Arg	Leu	Glu	Ala	Met
1				5					10					15	
Leu	Gly	Ala	Phe	Asp	Arg	Ile	Asn	Ala	Asp	Pro	Ala	Leu	Leu	Pro	Gly
			20					25					30		
Leu	Ala	Leu	Gly	Leu	Ala	Ile	Leu	Asp	Ile	Asn	Ser	Leu	Arg	Asn	Val
		35					40					45			
Ala	Leu	Glu	Gln	Ser	Phe	Thr	Phe	Val	Tyr	Gly	Leu	Leu	Ile	Lys	Cys
	50					55					60				
Asp	Cys	Ser	Ser	Val	Arg	Cys	Ala	Gly	Gly	Asp	Leu	Ala	Leu	Thr	His
65					70					75					80
Gly	Val	Ala	Gly	Val	Ile	Gly	Pro	Ser	Cys	Ser	Ser	Ser	Ala	Ile	Gln
				85					90					95	
Val	Ala	Asn	Leu	Ala	Ser	Leu	Leu	Asn	Ile	Pro	Met	Ile	Ser	Tyr	Gly
		100						105					110		
Ser	Thr	Ala	Pro	Glu	Leu	Ser	Asp	Lys	Thr	Arg	Tyr	Pro	Thr	Phe	Ser
		115					120					125			
Arg	Thr	Ile	Pro	Ser	Asp	Ala	Phe	Gln	Gly	Leu	Ala	Met	Val	Asp	Ile
	130					135					140				
Phe	Lys	His	Phe	Asn	Trp	Asn	Tyr	Val	Ser	Val	Val	Tyr	Ser	Asp	Gly
145					150					155					160
Thr	Tyr	Gly	Glu	Glu	Gly	Cys	Glu	Ala	Phe	Ile	Glu	Ala	Leu	Arg	Ala
				165					170				175		
Arg	Gly	Gly	Cys	Ile	Ala	Leu	Ser	Val	Lys	Ile	Gly	Glu	Phe	Asp	Arg
			180					185					190		
Gly	Asp	Glu	Glu	Asp	Phe	Asp	Lys	Leu	Leu	Arg	Glu	Leu	Lys	Arg	Arg
	195						200					205			
Ala	Arg	Val	Val	Val	Met	Cys	Gly	His	Gly	Glu	Thr	Leu	Arg	Glu	Leu
	210					215					220				
Leu	Glu	Ala	Ala	Leu	Arg	Leu	Gly	Leu	Thr	Gly	Glu	Asp	Tyr	Val	Phe
225					230					235					240
Ile	Ser	Asp	Asp	Leu	Phe	Asn	Lys	Ser	Leu	Pro	Ala	Glu	Pro	Gly	Ala
				245					250					255	
Pro	Gly	Ala	Ile	Glu	Leu	Ala	Asn	Ala	Ser	Met	Leu	Arg	Phe	Ala	Tyr
		260					265						270		

Tyr Phe Val Leu Val Leu Thr Leu Asn Asn Pro Arg Asn Pro Trp Phe
 275 280 285
 Leu Glu Phe Trp Lys Glu Asn Phe Ile Cys Ala Leu Gln Asp Phe Leu
 290 295 300
 Thr Leu Glu Pro Tyr Glu Gln Glu Gly Lys Ala Gly Phe Val Tyr Asp
 305 310 315 320
 Ala Val Tyr Leu Tyr Ala His Ala Leu His Asn Thr Thr Leu Ala Leu
 325 330 335
 Gly Gly Ser Trp Val Asp Gly Glu Lys Leu Val Gln His Leu Arg Asn
 340 345 350
 Leu Thr Phe Glu Gly Val Thr Gly Pro Val Thr Phe Asp Glu Asn Gly
 355 360 365
 Asp Arg Asp Gly Asp Tyr Val Leu Leu Asp Thr Gln Asn Thr Glu Thr
 370 375 380
 Gly Gln Leu Lys Val Thr Gly Thr Tyr Asp Gly Val Gly Lys Trp Thr
 385 390 395 400
 Glu Pro

<210> 85

<211> 256

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 7
 transmembrane receptor (metabotropic E family)
 Consensus Sequence

<400> 85

Leu Gly Ile Val Leu Val Ala Leu Ala Val Leu Gly Ile Val Leu Thr
 1 5 10 15
 Leu Phe Val Leu Val Val Phe Val Lys His Arg Asp Thr Pro Ile Val
 20 25 30
 Lys Ala Ser Asn Arg Glu Leu Ser Tyr Leu Leu Leu Ile Gly Leu Ile
 35 40 45
 Leu Cys Tyr Leu Cys Ser Phe Leu Phe Ile Gly Lys Pro Ser Glu Thr
 50 55 60
 Ser Cys Ile Leu Arg Arg Ile Leu Phe Gly Leu Gly Phe Thr Leu Cys
 65 70 75 80
 Tyr Ser Ala Leu Leu Ala Lys Thr Asn Arg Val Leu Arg Ile Phe Arg
 85 90 95

Ala Lys Lys Pro Gly Ser Gly Lys Pro Lys Phe Ile Ser Pro Trp Ala
 100 105 110
 Gln Val Leu Ile Val Leu Ile Leu Val Leu Ile Gln Val Ile Ile Cys
 115 120 125
 Val Ile Trp Leu Val Val Glu Pro Pro Arg Pro Thr Ile Asp Ile Tyr
 130 135 140
 Ser Glu Lys Glu Lys Ile Ile Leu Glu Cys Asn Lys Gly Ser Met Val
 145 150 155 160
 Ala Phe Val Val Val Leu Gly Tyr Asp Gly Leu Leu Ala Val Leu Cys
 165 170 175
 Thr Phe Leu Ala Phe Leu Thr Arg Asn Leu Pro Glu Asn Phe Asn Glu
 180 185 190
 Ala Lys Phe Ile Gly Phe Ser Met Leu Thr Phe Cys Ile Val Trp Val
 195 200 205
 Ala Phe Ile Pro Ile Tyr Leu Ser Thr Pro Gly Lys Val Gln Val Ala
 210 215 220
 Val Glu Ile Phe Ser Ile Leu Ala Ser Ser Thr Val Leu Leu Gly Cys
 225 230 235 240
 Leu Phe Val Pro Lys Cys Tyr Ile Ile Leu Phe Arg Pro Glu Lys Asn
 245 250 255

<210> 86
 <211> 86
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: PDZ domain
 Consensus Sequence

<400> 86
 Glu Pro Arg Leu Val Glu Leu Glu Lys Gly Gly Gly Gly Leu Gly Phe
 1 5 10 15
 Ser Leu Val Gly Gly Lys Asp Ser Gly Asp Gly Gly Val Val Val Ser
 20 25 30
 Ser Val Val Pro Gly Ser Pro Ala Ala Lys Ala Gly Leu Lys Pro Gly
 35 40 45
 Asp Val Ile Leu Glu Val Asn Gly Thr Ser Val Glu Gly Leu Thr His
 50 55 60
 Leu Glu Ala Val Asp Leu Leu Lys Glu Ala Gly Gly Lys Val Thr Leu

65	70	75	80
Thr Val Leu Arg Gly Gly			
85			
<210> 87			
<211> 25			
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<223> Description of Artificial Sequence: NOV1c Primer 1			
<400> 87			
tcatcacatg acaacatgaa gctgt			25
<210> 88			
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<223> Description of Artificial Sequence: NOV1c Primer 2			
<400> 88			
gaaagccctc aaactctcca tctatg			26
<210> 89			
<211> 22			
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<400> 89			
ccaatctctg atgccctgcg at			22
<210> 90			
<211> 20			
<212> DNA			
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<223> Description of Artificial Sequence: NOV7a Primer 2			
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aggtcagtgc cggagcctcc			20
<210> 91			
<211> 19			
<212> DNA			

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Ag273b Forward

<400> 91
cggttgacg atgcttcac 19

<210> 92
<211> 32
<212> DNA
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<223> Description of Artificial Sequence: Ag273b Probe

<400> 92
tgacttttct gggcttacca atgctatttc aa 32

<210> 93
<211> 27
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<223> Description of Artificial Sequence: Ag273b Reverse

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gcacctatct caatatctgc aatattg 27

<210> 94
<211> 20
<212> DNA
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<223> Description of Artificial Sequence: Ag1094 Forward

<400> 94
atggactgga aaacctggaa 20

<210> 95
<211> 29
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<223> Description of Artificial Sequence: Ag1094 Probe

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tcctgcaagc agataacaat tttatcaca 29

<210> 96
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 <223> Description of Artificial Sequence: Ag1094 Reverse

 <400> 96
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 <210> 97
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 <220>
 <223> Description of Artificial Sequence: Ag2100 Forward

 <400> 97
 agatccctgg aacagaggat t 21

 <210> 98
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Ag2100 Probe

 <400> 98
 tgtctgaagc caataaactt gcagca 26

 <210> 99
 <211> 21
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 <400> 99
 ccttcatgtt cctttgggta a 21

 <210> 100
 <211> 22
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 <220>
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 <400> 100

atctgtgctg aggcattgtc ct 22

<210> 101
<211> 23
<212> DNA
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<220>
<223> Description of Artificial Sequence: Ag217 Probe

<400> 101
atcctcctcc ctccccggct ctc 23

<210> 102
<211> 19
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<220>
<223> Description of Artificial Sequence: Ag217 Reverse

<400> 102
ctgcatggct ggtgtgatg 19

<210> 103
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<220>
<223> Description of Artificial Sequence: Ag850 Forward

<400> 103
cctttcttct cttcctcctc aa 22

<210> 104
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<220>
<223> Description of Artificial Sequence: Ag850 Probe

<400> 104
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<210> 105
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<223> Description of Artificial Sequence: Ag850 Reverse

<400> 105
 ggtggatggc gttgtagag 19

<210> 106
 <211> 22
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<220>
 <223> Description of Artificial Sequence: Ag1469 Forward

<400> 106
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<210> 107
 <211> 26
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<220>
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<400> 107
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<210> 108
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<400> 108
 aagtcaggga tgatggtgaa g 21

<210> 109
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 <223> Description of Artificial Sequence: Ag2976 Forward

<400> 109
 accccaaatg gattccatta 20

<210> 110
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<213> Artificial Sequence

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<223> Description of Artificial Sequence: Ag2976 Probe

<400> 110
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<210> 111
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<223> Description of Artificial Sequence: Ag2976 Reverse

<400> 111
cttgtgtgtg catgcttgtc 20

<210> 112
<211> 22
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<220>

<223> Description of Artificial Sequence: Ag760 Forward

<400> 112
caccatgaca acgacaccta ta 22

<210> 113
<211> 25
<212> DNA
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<220>

<223> Description of Artificial Sequence: Ag760 Probe

<400> 113
atatggcacc aacatcacat gcacg 25

<210> 114
<211> 22
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<220>

<223> Description of Artificial Sequence: Ag760 Reverse

<400> 114
tgggtagaaa gtgtgtgtga aa 22

<210> 115
 <211> 22
 <212> DNA
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 <220>
 <223> Description of Artificial Sequence: Ag1537 Forward

 <400> 115
 aaggagctgg aagagaagaa ga 22

 <210> 116
 <211> 26
 <212> DNA
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 <220>
 <223> Description of Artificial Sequence: Ag1537 Probe

 <400> 116
 atcagaaact cagccctgga cacctg 26

 <210> 117
 <211> 19
 <212> DNA
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 <220>
 <223> Description of Artificial Sequence: Ag1537 Reverse

 <400> 117
 gctgcgactt ggtcttgat 19

 <210> 118
 <211> 22
 <212> DNA
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 <220>
 <223> Description of Artificial Sequence: Ag147 Forward

 <400> 118
 tgaagacagc acctccctat ca 22

 <210> 119
 <211> 21
 <212> DNA
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 <220>
 <223> Description of Artificial Sequence: Ag147 Probe

 <400> 119

cggtccgtg ctgtcaccca g 21

<210> 120
<211> 22
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<220>
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<400> 120
aagaatcctc agcatcgcca ta 22

<210> 121
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag718 Forward

<400> 121
agaaggaatc tctgggaaag ct 22

<210> 122
<211> 27
<212> DNA
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<220>
<223> Description of Artificial Sequence: Ag718 Probe

<400> 122
ccactggaga tgcttggtgc tctacca 27

<210> 123
<211> 22
<212> DNA
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<220>
<223> Description of Artificial Sequence: Ag718 Reverse

<400> 123
gacagagcac tggctagttc ac 22

<210> 124
<211> 22
<212> DNA
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<220>

<223> Description of Artificial Sequence: Ag3681/Ag4085
Forward

<400> 124
gaatcatcca caagtcattcc at 22

<210> 125
<211> 25
<212> DNA
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<220>
<223> Description of Artificial Sequence: Ag3681/Ag4085
Probe

<400> 125
ctcactccca tctcatgcct cccag 25

<210> 126
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag3681/Ag4085
Reverse

<400> 126
catgctgaat gatcgtgaca 20

<210> 127
<211> 1011
<212> PRT
<213> Homo sapiens

<400> 127
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1 5 10 15
Lys Gly Glu Ala Cys Asp Ile Pro His Cys Thr Asp Asn Cys Gly Phe
20 25 30
Pro His Arg Gly Ile Cys Asn Ser Ser Asp Val Arg Gly Cys Ser Cys
35 40 45
Phe Ser Asp Trp Gln Gly Pro Gly Cys Ser Val Pro Val Pro Ala Asn
50 55 60
Gln Ser Phe Trp Thr Arg Glu Glu Tyr Ser Asn Leu Lys Leu Pro Arg
65 70 75 80
Ala Ser His Lys Ala Val Val Asn Gly Asn Ile Met Trp Val Val Gly
85 90 95

Pro Gly Ile Arg Cys Val Trp Asn Thr Gly Ser Ser Gln Cys Ile Ser
 405 410 415
 Trp Ala Leu Ala Thr Asp Glu Gln Glu Glu Lys Leu Lys Ser Glu Cys
 420 425 430
 Phe Ser Lys Arg Thr Leu Asp His Asp Arg Cys Asp Gln His Thr Asp
 435 440 445
 Cys Tyr Ser Cys Thr Ala Asn Thr Asn Asp Cys His Trp Cys Asn Asp
 450 455 460
 His Cys Val Pro Arg Asn His Ser Cys Ser Glu Gly Gln Ile Ser Ile
 465 470 475 480
 Phe Arg Tyr Glu Asn Cys Pro Lys Asp Asn Pro Met Tyr Tyr Cys Asn
 485 490 495
 Lys Lys Thr Ser Cys Arg Ser Cys Ala Leu Asp Gln Asn Cys Gln Trp
 500 505 510
 Glu Pro Arg Asn Gln Glu Cys Ile Ala Leu Pro Glu Asn Ile Cys Gly
 515 520 525
 Ile Gly Trp His Leu Val Gly Asn Ser Cys Leu Lys Ile Thr Thr Ala
 530 535 540
 Lys Glu Asn Tyr Asp Asn Ala Lys Leu Phe Cys Arg Asn His Asn Ala
 545 550 555 560
 Leu Leu Ala Ser Leu Thr Thr Gln Lys Lys Val Glu Phe Val Leu Lys
 565 570 575
 Gln Leu Arg Ile Met Gln Ser Ser Gln Ser Met Ser Lys Leu Thr Leu
 580 585 590
 Thr Pro Trp Val Gly Leu Arg Lys Ile Asn Val Ser Tyr Trp Cys Trp
 595 600 605
 Glu Asp Met Ser Pro Phe Thr Asn Ser Leu Leu Gln Trp Met Pro Ser
 610 615 620
 Glu Pro Ser Asp Ala Gly Phe Cys Gly Ile Leu Ser Glu Pro Ser Thr
 625 630 635 640
 Arg Gly Leu Lys Ala Ala Thr Cys Ile Asn Pro Leu Asn Gly Ser Val
 645 650 655
 Cys Glu Arg Pro Ala Asn His Ser Ala Lys Gln Cys Arg Thr Pro Cys
 660 665 670
 Ala Leu Arg Thr Ala Cys Gly Asp Cys Thr Ser Gly Ser Ser Glu Cys
 675 680 685
 Met Trp Cys Ser Asn Met Lys Gln Cys Val Asp Ser Asn Ala Tyr Val
 690 695 700

Ala	Ser	Phe	Pro	Phe	Gly	Gln	Cys	Met	Glu	Trp	Tyr	Thr	Met	Ser	Thr	
705					710					715					720	
Cys	Pro	Pro	Glu	Asn	Cys	Ser	Gly	Tyr	Cys	Thr	Cys	Ser	His	Cys	Leu	
				725					730					735		
Glu	Gln	Pro	Gly	Cys	Gly	Trp	Cys	Thr	Asp	Pro	Ser	Asn	Thr	Gly	Lys	
			740					745					750			
Gly	Lys	Cys	Ile	Glu	Gly	Ser	Tyr	Lys	Gly	Pro	Val	Lys	Met	Pro	Ser	
		755					760					765				
Gln	Ala	Pro	Thr	Gly	Asn	Phe	Tyr	Pro	Gln	Pro	Leu	Leu	Asn	Ser	Ser	
	770					775						780				
Met	Cys	Leu	Glu	Asp	Ser	Arg	Tyr	Asn	Trp	Ser	Phe	Ile	His	Cys	Pro	
785					790					795					800	
Ala	Cys	Gln	Cys	Asn	Gly	His	Ser	Lys	Cys	Ile	Asn	Gln	Ser	Ile	Cys	
				805					810						815	
Glu	Lys	Cys	Glu	Asn	Leu	Thr	Thr	Gly	Lys	His	Cys	Glu	Thr	Cys	Ile	
			820					825					830			
Ser	Gly	Phe	Tyr	Gly	Asp	Pro	Thr	Asn	Gly	Gly	Lys	Cys	Gln	Pro	Cys	
		835					840					845				
Lys	Cys	Asn	Gly	His	Ala	Ser	Leu	Cys	Asn	Thr	Asn	Thr	Gly	Lys	Cys	
	850					855					860					
Phe	Cys	Thr	Thr	Lys	Gly	Val	Lys	Gly	Asp	Glu	Cys	Gln	Leu	Cys	Glu	
865					870					875					880	
Val	Glu	Asn	Arg	Tyr	Gln	Gly	Asn	Pro	Leu	Arg	Gly	Thr	Cys	Tyr	Tyr	
				885					890					895		
Thr	Leu	Leu	Ile	Asp	Tyr	Gln	Phe	Thr	Phe	Ser	Leu	Ser	Gln	Glu	Asp	
			900					905					910			
Asp	Arg	Tyr	Tyr	Thr	Ala	Ile	Asn	Phe	Val	Ala	Thr	Pro	Asp	Glu	Gln	
		915					920					925				
Asn	Arg	Asp	Leu	Asp	Met	Phe	Ile	Asn	Ala	Ser	Lys	Asn	Phe	Asn	Leu	
		930				935					940					
Asn	Ile	Thr	Trp	Ala	Ala	Ser	Phe	Ser	Ala	Gly	Thr	Gln	Ala	Gly	Glu	
945					950					955					960	
Glu	Met	Pro	Val	Val	Ser	Lys	Thr	Asn	Ile	Lys	Glu	Tyr	Lys	Asp	Ser	
				965					970					975		
Phe	Ser	Asn	Glu	Lys	Phe	Asp	Phe	Arg	Asn	His	Pro	Asn	Ile	Thr	Phe	
			980					985					990			
Phe	Val	Tyr	Val	Ser	Asn	Phe	Thr	Trp	Pro	Ile	Lys	Ile	Gln	Val	Gln	
		995					1000					1005				

Thr Glu Gln
1010